

The background of the entire page is composed of numerous abstract, irregular blue shapes in various shades of blue, ranging from light to dark. These shapes are scattered across the white background, creating a dynamic and modern aesthetic.

MD-1300

User's Guide **PC Compatible**

Photographic-Quality Color Printer

For US Customers:

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As an ENERGY STAR Partner, ALPS has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

ALPS ELECTRIC (USA), INC.

3553 North First Street

San Jose, CA 95134

Telephone: (800) 825-2577

FAX: (408) 432-6035

BBS: (408) 432-6424

WWW: <http://www.alpsusa.com>

Part Number: 105770-00

For European Customers:

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ALPS ELECTRIC (IRELAND) LIMITED

Clara Road,

Millstreet Town,

Co. Cork,

Ireland.

Telephone: 353-29-70677

FAX: 353-29-70603

Printed in Japan.



RADIO & TELEVISION INTERFERENCE

UNITED STATES. The equipment described in this guide generates and uses radio frequency energy. If it is not installed and used in accordance with the instructions in this guide, it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, you should consult your dealer or experienced radio/television technician for additional suggestions. You may find helpful the following booklet, prepared by the Federal Communications Commission: *How to Identify and Resolve Radio-TV Interference Problems*.

This booklet is available from the United States Government Printing Office, Washington, D.C. 20402. The booklet number is 004-000-00345-4.

Note: Changes or Modifications not expressly approved by the party responsible for compliance could void the user's right to operate this equipment.

Peripherals used in conjunction with this equipment must be connected via shielded interface cables. Use of unshielded interface cables may result in interference to radio and TV reception, and may void the user's right to operate this equipment.

Declaration of Conformity

Model Number: MD-1300
Trade Name: ALPS
Responsible party: ALPS ELECTRIC (USA), INC.
Address: 3553 North First Street, San Jose, CA 95134 USA
Telephone number: (408) 432-6000

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT SAFETY INSTRUCTIONS

1. Read all of these instructions and save them for later reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
6. Slots and openings on the cabinet and the back or bottom are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, do not block or cover these openings. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power source indicated on the marking label of the AC adaptor. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be walked on.
9. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also, make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
10. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
11. Except as explained elsewhere in this guide, don't attempt to service this product yourself. Opening and removing those covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks. Refer all servicing on those compartments to service personnel.
12. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance, indicating a need for service.

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Introduction

Your new Alps MD-1300 Photographic-Quality Color Printer is the first versatile dye-sublimation printer to bring true photographic quality to the desktop. Using Alps' patented Micro Dry™ Photographic-Quality Inks and Photographic-Quality media you can print detailed, continuous-tone images, similar to photographs. Take images from a variety of sources — scanners, digital cameras, the Internet, PhotoCDs, and more. Edit, crop, and resize those images using the photo software provided, and print them out in rich, vivid, water-resistant color onto Photographic-Quality Paper and Labels.

The Alps MD-1300 Photographic-Quality Color Printer is also extremely versatile — it's almost like having two printers in one. Using the Alps standard Micro Dry™ inks and Alps special paper, you can print exquisite 1200 x 600 dpi color. You can even print 600x600 dpi color on T-shirt transfers, overhead transparencies, greeting cards, and more with fadeproof, smearproof, and waterproof inks. You can even use Micro Dry™ metallic inks to add sparkling touches to business cards, letterhead, and invitations.

Your new Alps MD-1300 Photographic-Quality Color Printer is easy to install and easy to use. The enclosed Quick Start Guide will get experienced users up and running quickly. This User's Guide will provide detailed information and instructions about set-up and operation, to help you take full advantage of this printer's many features.

Service, Support and Supplies

It is our goal to make your Alps MD-1300 ownership a satisfying experience. Our Alps support staff is available to assist you in setting up and operating your printer. If needed, our convenient repair service is at your disposal.

For US Customers

Please refer to the product support information below, or write us at Alps Electric (USA), Inc., 3553 North first Street, San Jose, CA, 95134.

Product Support

For information or assistance with the setup, operation, troubleshooting, or repair of your Alps MD-1300 printer, you may first wish to call the dealer from whom you purchased your printer. If necessary, please feel free to call the Alps Electric Help Desk at 1-800-449-2577, Monday through Friday, from 6:00 am through 6:00 pm Pacific time. You may also contact our CompuServe forum (GO ALPS), our web site (<http://www.alpsusa.com>), or our BBS (1-408-432-6424) at any time.

Supplies

Supplies such as ink cartridges, paper, transparencies, back print film or greeting cards are available through your Alps Dealer. For your added convenience, these supplies are available through Alps Direct Connect at 1-800-950-2577.

Warranty

Please refer to the Alps Warranty Card included with your MD-1300 printer.

For European Customers

Product Support

For information or assistance, refer to the service and support information below or write to ALPS ELECTRIC (IRELAND) LTD., Clara Road, Millstreet Town, Co. Cork, Ireland.

For freephone product information and technical support contact ALPS by dialling the number for your country.

Country	Telephone	Country	Telephone
Austria	06608375	Netherlands	060226732
Belgium	080072632	Norway	80011639
Denmark	80016059	Spain	900982907
Finland	0800113550	Sweden	020794434
France	0800907266	Switzerland	0800559953
Germany	0130825268	United Kingdom	0800973405
Italy	167780052	Portugal	050553050

If your country is not listed ALPS can be contacted at

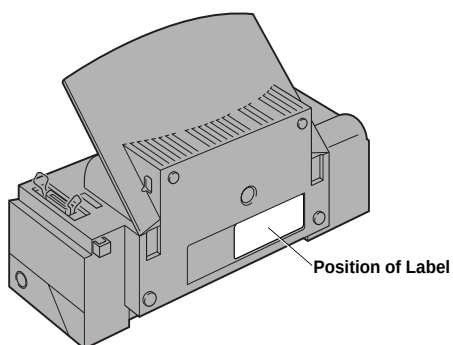
Telephone: +353-29-30118
Fax: +353-29-30124
e-mail: mdprinters@alps.ie
www: <http://www.alps.ie>

Warranty

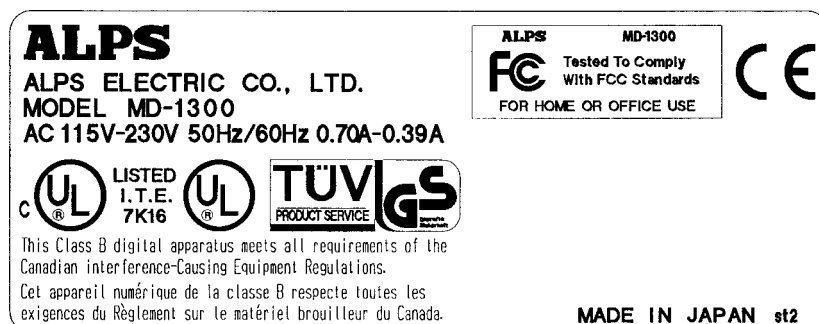
Please refer to the Alps Warranty Card included with your MD-1300 printer.

Product Label

The label for this product can be found in the position shown below:



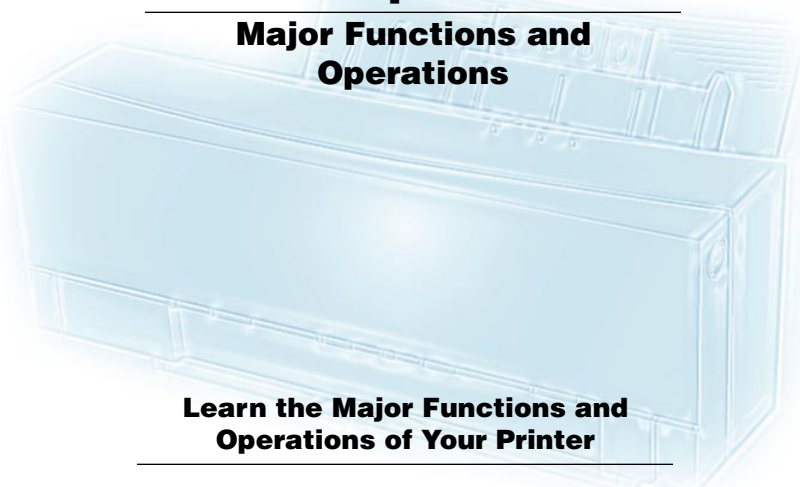
This label is applied to products.



MD-1300

Chapter 1

Major Functions and Operations



Learn the Major Functions and Operations of Your Printer

This chapter describes how to set up your printer, the name of each part of your printer and how it functions, how to insert the cartridges and paper, and how to install the printer driver into your computer. Read this chapter before you use the printer for the first time to learn how to set it up.

Photographic-Quality Color Printer

Getting Your Printer Ready

Set up your printer by performing the following steps:

- Getting your printer ready.
Remove the packing materials.
- Connecting cables.
Connect the printer to your computer with a printer cable and to a suitable AC power source with the power cord.

Getting Your Printer Ready

Get your printer ready by removing the packing materials from inside and outside the printer.

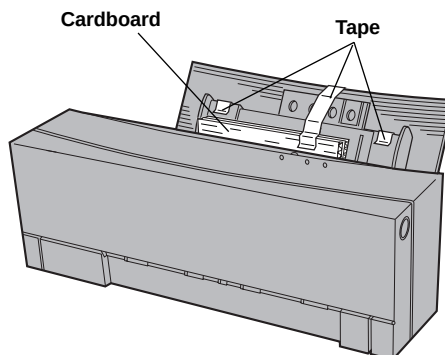


Caution

This printer is shipped with tape, spacers, and other packing materials to prevent delicate parts from being damaged while in transit. Remove these packing materials before using the printer. If the printer is used while these packing materials are still present, damage to the printer or malfunction may occur.

Removing the outside packing materials

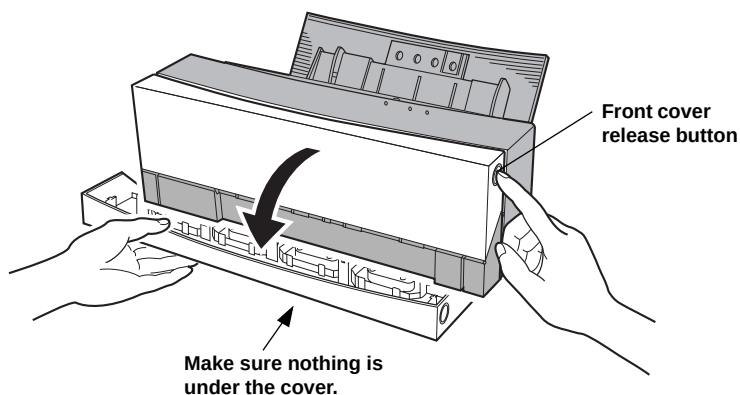
The printer is shipped with packing materials to prevent damage during transit. Remove the tape (three locations in front) and cardboard from the printer before using.



Opening the front cover

Open the front cover to remove the inside packing material.

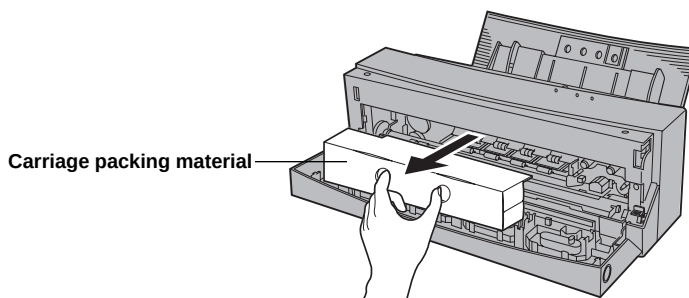
To open the front cover, push the front cover release button to release the internal lock. Gently lower the front cover with your hand.



Removing the carriage packing material

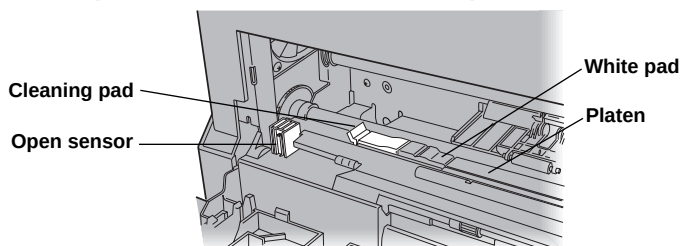
Remove the carriage packing material from inside the printer.

Using the printer without removing the packing materials can result in damage to the printer.



Caution

Do not remove the white pad or the cleaning pad at the left end of the platen. They are there to clean the print head. Removing them can cause the printer to malfunction. The cleaning pad is exchangeable for a new one when it gets dirty. Do not touch the open sensor, which is located inside the printer on the left end.



Closing the front cover

Close the front cover after removing the carriage packing material.



Caution

When closing the front cover, never slam it shut. The ink cartridges can become dislodged and damage to the printer may result.



Locating the printer

After removing the packing material from the outside and inside of the printer and reading the section "IMPORTANT SAFETY INSTRUCTIONS," position the printer in an appropriate location. Ensure there is enough space to use your printer easily.

Connecting Cables

When your printer is properly set up, connect the printer to your computer with a printer cable and to a suitable AC power source with the power cord.

- Connect the printer to your computer.
- Connect a power cord to the printer.

Connecting the printer to your computer

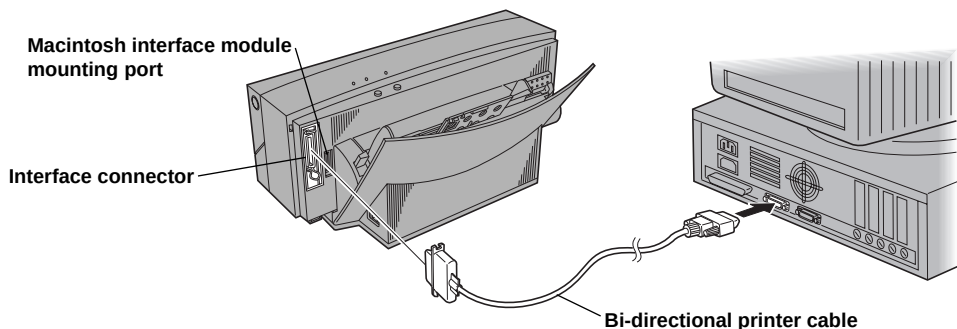
1. Make sure that the power to your computer is completely turned off. If the computer is running, quit all running applications, shut down the system, and turn off the power.



Caution

Power to the printer and computer must be completely disconnected before connecting or disconnecting the printer cable. (They must be unplugged.) Otherwise damage or malfunction may result.

2. Connect the printer to the computer with a printer cable. Secure the printer cable to the connectors on the printer and on the computer.

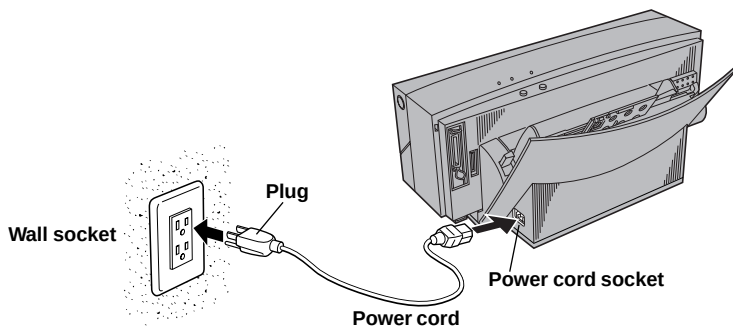


Note

When using your printer with a Macintosh computer, connect the printer to the computer using a Macintosh interface module.

Power cord connections

1. Plug the power cord into the power cord socket on the printer. Make sure that the power cord is securely seated in the socket.
2. Plug the free end of the power cord into a suitable AC power source (such as a wall socket).



Caution

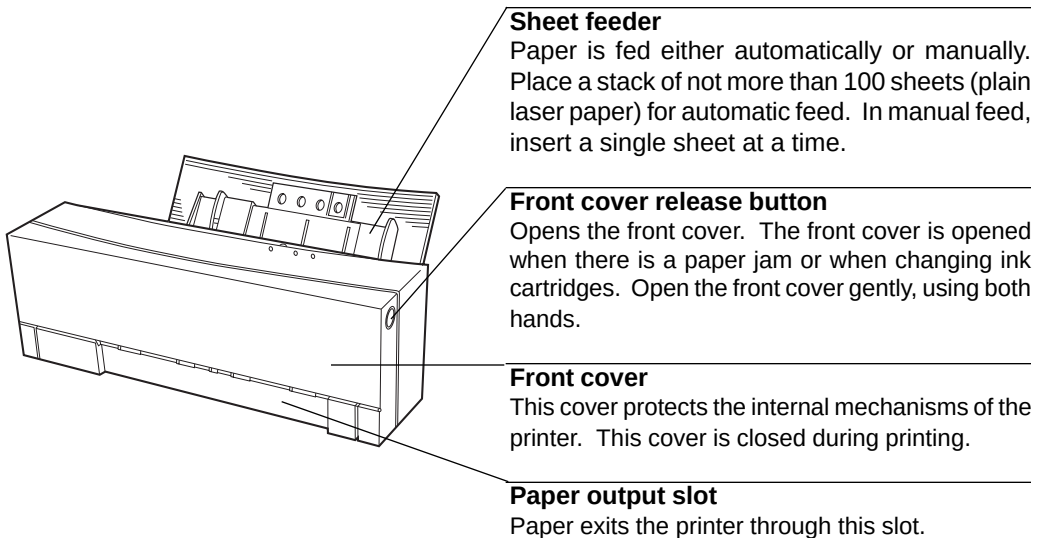
Power to the printer is completely cut off only when the cord is unplugged. Place the printer where you can easily unplug it from the wall socket. Also, pull the plug and not the cord when unplugging the printer.

Name and Function of Each Part of the Printer

This section explains the name and function of each part of the printer.

Chapter
1

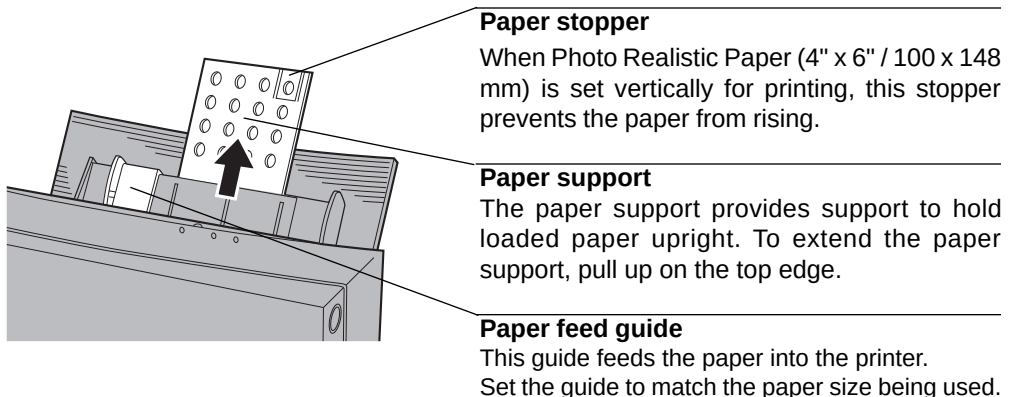
Printer (Front View)



Caution

Never reach into the printer while it is operating. Injury may result.

Do not open the front cover while the printer is running.



Caution

Never reach into the sheet feeder. By doing so, you might get injured, or the printer might malfunction.

Printer (Rear View)

EXT connector

This part is not used when your printer is connected to a PC. This is where the Macintosh interface module is connected when using your printer with a Macintosh computer. When connecting the Macintosh interface module, make sure you remove the seal before connecting.

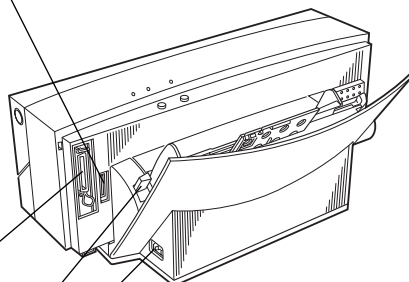
The Macintosh interface module (part number 105715-00) is also available as an option.

Parallel interface connector

The printer cable is connected to the parallel interface connector.

Paper feed switch

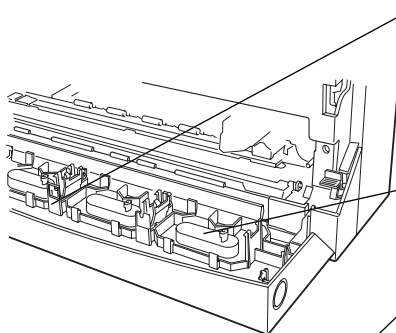
This switch sets the paper feeding method to either automatic feed mode or manual feed mode.



Power cord socket

This is where the power cord is connected to the printer.

Inside the Printer



Marking sticker

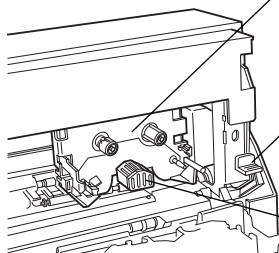
This allows you to confirm that the carriage is in the standard position. Try not to smear the face of the sticker. If it gets dirty, gently clean it with a dry cotton swab. As you do so, be careful not to peel it off.

Ink cartridge holder plate

This tray holds the ink cartridges. The four holder plates hold the ink cartridges needed for a particular printing job.

Carriage

The carriage automatically picks up the specific ink cartridge needed for printing and moves it to the printing location. The carriage also contains the print head.



Release lever

This lever is used to clear paper jams. When the lever is pressed down the paper can be removed. The release lever is to the right of the carriage and platen. Close the front cover, and the lever will automatically go back to its original position.

Print head

The print head prints the characters. Do not touch it.

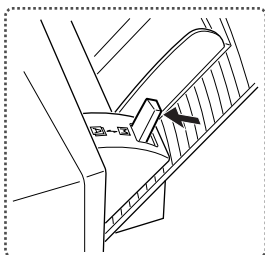


Caution

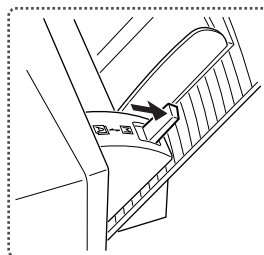
Do not touch the print head or the carriage. Doing so can cause damage to the printer. Also, never load an ink cartridge directly into the carriage. Malfunction or damage to the printer may result.

Paper Feed Switch

For continual printing using automatic feeding, set the paper feed switch to position "A". To manually feed paper, set the paper feed switch to position "M". To use Photo Realistic Paper (4" x 6" / 100 x 148 mm), set the paper feed switch to position "M" for both automatic and manual feeds.



Paper feed switch set in position "A"



Paper feed switch set in position "M"



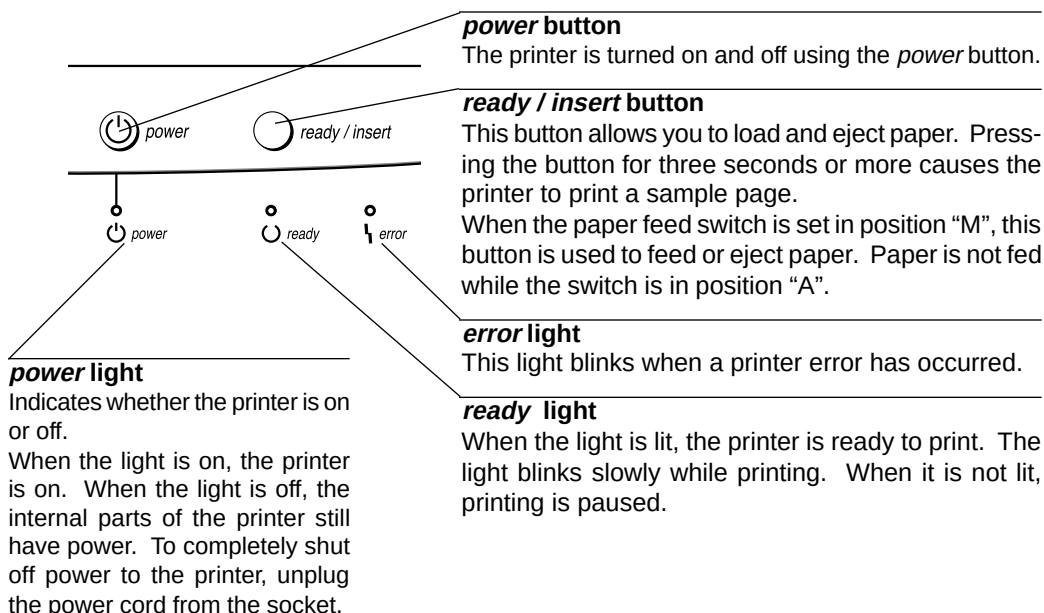
Note

Do not move the paper feed switch while paper is being fed. Otherwise, the paper may feed in incorrectly.

Move the paper feed switch until it clicks into position "M" or "A". Paper will not feed properly unless the switch is correctly set to "M" or "A".

Control Panel

The top portion of the printer has two buttons and three LED indicator lights. By pushing one of these buttons and looking at the lights, you can perform various printer functions, such as ejecting paper. This portion with the buttons and the lights is called the control panel.



Installing Ink Cartridges

This section describes how to identify ink cartridge types, and how to install and exchange cartridges.

Identifying Ink Cartridge and Paper Types

The ink cartridge type is indicated on the surface of each cartridge.



The product name and part number in this area.

List of Cartridge type

Printing type	Ink cartridge type (Part number)	Matching paper type For US customers	For European customers
Full color printing	Black (106005-00)	Plain paper	Plain paper
	Yellow (106010-00)	Laser paper	Laser paper
	Magenta (106015-00)	High Grade Paper (106085-00)	High Grade Paper (106085-00-EU)
	Cyan (106020-00)	Iron-on Transfer Sheets (106075-00)	Iron-on Transfer Sheets (106075-00)
	Multicolor* (106025-00)	Overhead Projector Transparency Film (106065-00) Letter Greeting Card Set (Plain side only) (106090-00)	Overhead Projector Transparency Film (106065-00-EU) A4 Greeting Card Set (Plain side only) (106090-00)
600 x 600 dpi full color printing with photo realistic finishing	Yellow (106010-00)	Laser paper	Laser paper
	Magenta (106015-00)	High Grade Paper (106085-00)	High Grade Paper (106085-00-EU)
	Cyan (106020-00)	Greeting Card Set (Plain side only) (106090-00)	Greeting Card Set (Plain side only) (106090-00)
	Finish (106054-00)		
1200 x 600 dpi full color printing with photo realistic finishing	Yellow (106010-00)	High Grade Paper (106085-00)	High Grade Paper (106085-00-EU)
	Magenta (106015-00)	Photo Realistic Paper Letter (105720-00)	Photo Realistic Paper A4 (105720-00-EU)
	Cyan (106020-00)	Photo Realistic Paper 4x6 (105721-00)	Photo Realistic Paper 100x148mm (105721-00)
	Finish (106054-00)	Photo Realistic Labels (105108-00)	Photo Realistic Labels (105108-00-EU)
Spot color printing	Metallic Gold (106030-00)	Plain paper	Plain paper
	Metallic Magenta (106035-00)	Laser paper	Laser paper
	Metallic Cyan (106040-00)	High Grade Paper (106085-00)	High Grade Paper (106085-00-EU)
	Metallic Silver (106045-00)	Greeting Card Set (106090-00)*1	Greeting Card Set (106090-00)*1
	White (106050-00)	Iron-on Transfer Sheets (106075-00)*2	Iron-on Transfer Sheets (106075-00)*2
	Finish (106054-00)	Overhead Projector Transparency Film (106065-00) Letter*2 Back Print Film (106080-00)*2	Overhead Projector Transparency Film (106065-00-EU) A4*2 Back Print Film (106080-00)*2
Photographic-Quality	Photo Cyan (105812-00)	Laser paper	Laser paper
	Photo Magenta (105814-00)	High Grade Paper (106085-00)	High Grade Paper (106085-00-EU)
	Photo Yellow (105816-00)	Photographic-Quality Paper Letter (105822-00)(Glossy side only)	Photographic-Quality Paper A4 (105822-00-EU)(Glossy side only)
	Photo Overcoat (105818-00)	Photographic-Quality Paper 4x6 (105824-00)(Glossy side only)	Photographic-Quality Paper 100x148mm (105824-00)(Glossy side only)

* Multicolor ink cannot be used for iron-on Transfer Sheets, Overhead Projector Transparencies, or Back Print Film.

White ink

*1 White ink can be used for printing on glossy side of greeting card but quality cannot be guaranteed.

*2 The white ink can be used with products marked with a "A2".



Caution

- The manufacturer only supports printing with the listed cartridge-paper combinations.
- Printing with an inappropriate ink cartridge-paper combination can damage the cartridge ribbon.
- Printing outside the printable area of a sheet can damage the cartridge ribbon. Always print within the printable area of a sheet (See "Printable Area" in Appendix).

Installing Ink Cartridges

Install ink cartridges by following the steps below.



Note

The carriage can select and pick up the necessary ink cartridge from any holder. Putting several ink cartridges of the same color in the holders can reduce the need to change ink cartridges.

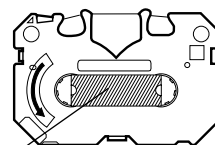


Caution

The ink cartridges may be put in any holder but **DO NOT** put ink cartridges directly into the carriage. Doing so may result in damage the printer.

1. Remove the stopper from the ink cartridge.

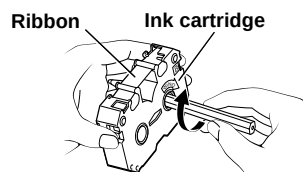
First, remove the stopper from the ink cartridge.



Stopper (To prevent slack in the ribbon)

2. Take up any slack in the ribbon.

Insert a pencil from the side marked "B" (the side with ALPS logo). Turn the pencil slowly to take up any slack in the ribbon.

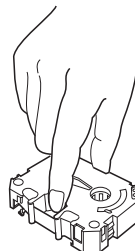


3. Open the front cover.

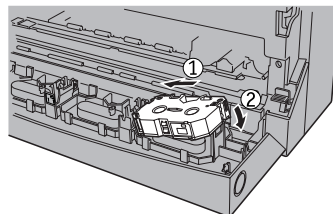
Push the front cover release button to release the internal lock. Gently lower the front cover with your hand.

4. Place the ink cartridges.

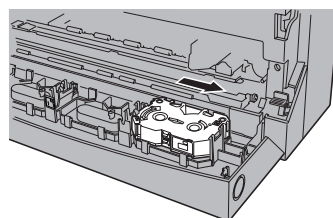
- Hold the ink cartridge so that the side with the letter "B" and the manufacturer's logo faces upward, and the "B" is at the upper right of the ink cartridge. Hold the center of the ink cartridge with your thumb and index finger.



- Insert the left end of the ink cartridge, while pushing the left side latch of the ink cartridge holder slightly to the left with the ink cartridge.



- Push down the right side of the ink cartridge. Make sure that the ink cartridge is securely locked into the holder, and that there is no slack in the ribbon.



Caution

Place the side marked "B" face up. If the ink cartridge is installed upside down, the printer will not know it has been installed.

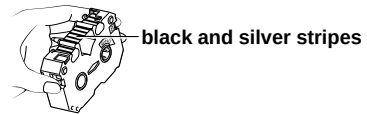
Exchanging Ink Cartridges

When you want to change ink cartridges or replace a cartridge whose ribbon has been used up, exchange cartridges by following the steps below.



Note

When an ink cartridge has been used up, black and silver stripes will be visible on the ribbon.

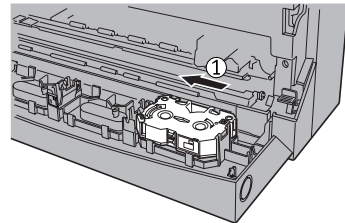


1. Open the front cover

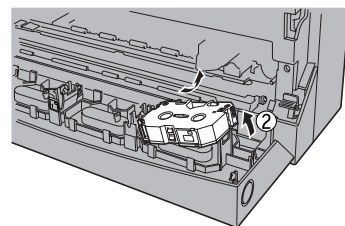
Open the front cover by pushing the front cover release button.

2. Remove the ink cartridge

- Removing a cartridge is similar to installing it. Hold the center of the ink cartridge with your thumb and index finger. Push the left latch on the ink cartridge holder slightly to the left with the cartridge.



- Lift up the right side of the cartridge, then remove the entire ink cartridge.



3. Place a new ink cartridge on the ink cartridge holder plate.

Place an ink cartridge by following the steps described in the previous section of "Installing Ink Cartridges."

Chapter 1

Loading Paper

This section explains how to load paper into the printer.

Paper Types and Available Feeding Modes

See the table below for information on switching between automatic and manual feeds, and on setting the paper feed switch ("A" or "M").

Media type	Automatic feed mode	Manual feed mode
Plain paper (for plain paper copiers)	A	M
Laser paper / High Grade Paper	A	M
Photo Realistic Paper (Letter / A4)	x	M
Photo Realistic Paper (4" x 6" / 100 x 148 mm)	M*1	M
Photo Realistic Labels	x	M
Overhead Projector Transparency Film	A	M
Iron-on Transfer Sheets	x	M
Back Print Film	x	M
Other (thick paper, etc.)	x	M
Photographic-Quality Paper (Letter / A4)	A*2	M
Photographic-Quality Paper (4" x 6" / 100 x 148 mm)	A*2	M
Photographic-Quality Labels	A*2	M

*1 For Photo Realistic Paper (4" x 6" / 100 x 148 mm), always set the switch to position "M", regardless of feed mode.

*2 To continuously print Photographic-Quality Paper or Labels, always use the guide sheet (included in the supplies).



Caution

Do not print on thermal paper, paper exclusively for use in ink jet printers, glossy paper (paper whose surface has been specially treated), and envelopes. Doing so may damage the printer.



Note

Loading too many sheets into the sheet feeder may cause paper jams or misfeeding.

Be aware that when using automatic feed mode, the last sheet to feed will occasionally feed incorrectly depending on the paper type.

Notes and precautions about paper

The printer's sheet feeder can feed paper to the printer automatically. It holds up the 100 sheets of plain paper (or 30 transparencies) at once.

Iron-on transfer sheets, thick paper, and other kinds of special printing media should be used in manual feed mode.

Normally it is most convenient to use automatic feed mode.

The approximate thicknesses of paper that can be used in manual feed mode or automatic feed mode are as follows:

Automatic feed mode 0.07 mm - 0.1 mm (0.003" - 0.004")

Manual feed mode 0.07 mm - 0.23 mm (0.003" - 0.01")



Caution

In automatic feed mode, never use paper in the sheet feeder with thickness outside the range 0.07 mm - 0.1 mm (0.003"-0.004"). In manual feed mode, never use paper whose thickness is outside the range 0.07 mm - 0.23 mm (0.003"-0.01"). Doing so may cause paper jams or cause damage to the printer.

Also, paper jams can be caused by paper that is extremely smooth or shiny, paper that is too rough, or paper that easily picks up static electricity.

Paper jams and other paper feed problems can tear the ribbons in ink cartridges. To avoid such problems, please note the following precautions:

- Always use the recommended paper types, and be sure to set the printer's paper options properly. Settings that are not appropriate for the paper being used can cause paper jams.
- When printing on Photographic-Quality Paper or Photographic-Quality Labels, use only Photographic ink cartridges to print on the glossy printable side.
- When printing on Photographic-Quality Paper or Photographic-Quality Labels, be sure to confine your printing to the glossy printable area. If you print outside this area, you may damage the Photographic ink cartridge.
- When printing on a thick sheet, allow a 1/2 inch (12 mm) margin on the left and right side to prevent tearing the ink cartridge ribbon by printing over the paper edge.
- When printing on a thick postcard-size sheet that is not a regular postcard, allow a 1/2 inch (12 mm) margin on the left and right side to prevent tearing the ink cartridge ribbon by printing over the paper edge.
- When printing on used sheets (already printed on the same side), use manual feed only. Automatic feed may not feed used sheets properly.
- When you use manual feed, avoid repeatedly inserting and removing the same sheet.

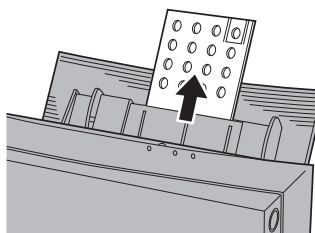
Loading Paper in Automatic Feed Mode

Use automatic feed mode to allow consecutive printing.

There are two methods for loading paper, depending on the media.

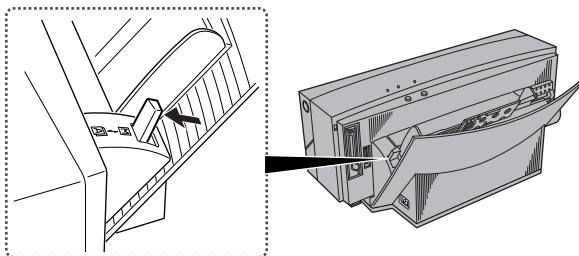
Letter / A4 size of High Grade Paper, plain paper, laser paper, and transparencies

1. Pull out the paper support.

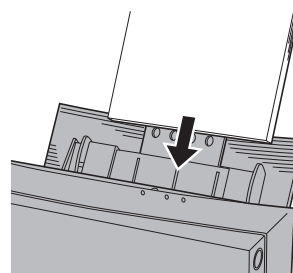


2. Switch the paper feed mode.

Place the paper feed switch in position "A".



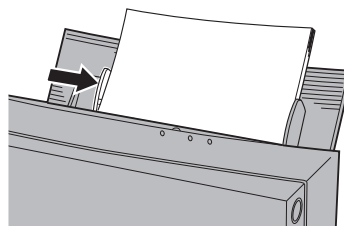
3. Place the paper in the sheet feeder.



Note

- Using creased or curled paper can cause the paper to misfeed.
- Fan the paper once before placing it in the sheet feeder. The printer may feed two sheets together if the sheets are slightly stuck together.
- Use only one type of paper at a time.
- Pushing the paper feed guide too hard against the paper can bend the paper. Adjust the position of the paper feed guide so that it just touches the paper.

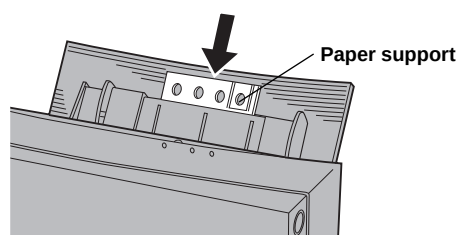
4. Adjust the paper feed guide to the paper size.



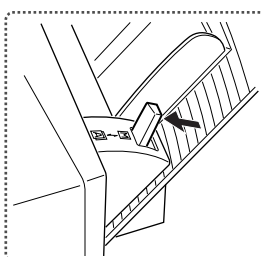
4" x 6" / 100 x 148 mm Photo Realistic Paper, Photographic-Quality Paper, and Photographic-Quality Labels

Up to 20 sheets of paper can be loaded at a time.

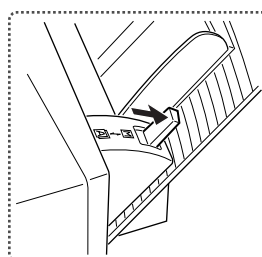
1. Push the paper support in.



2. For Photo Realistic Paper (4" x 6" / 100 x 148 mm) set the paper feed switch to position "M". For Photographic-Quality Paper (4" x 6" / 100 x 148 mm) or Photographic-Quality Labels, set the paper feed switch to position "A".



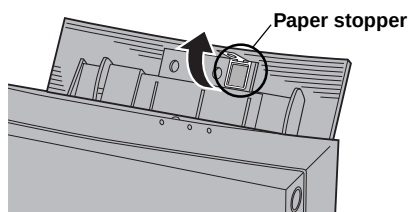
Paper feed switch set in position "A"



Paper feed switch set in position "M"

3. Lift the paper stopper.

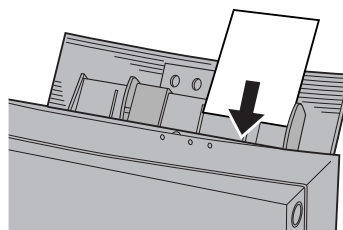
Gently press the upper part of the paper stopper to raise its lower part. If the stopper is forced upward, it may slip out.

**Note**

To load Photographic-Quality Paper (4" x 6" / 100 x 148 mm) or Photographic-Quality Labels, do not lift the paper stopper.

4. Load paper.

Extend the paper feed guide until it is slightly wider than the paper to be used. Riffle the sheets of paper, and then insert them into the sheet feeder so that the right edge of the paper is flush with the right edge of the guide. Set the sheets with the printing surface facing upward.

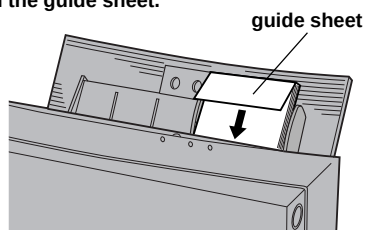
**Note**

Riffle the sheets before loading them into the sheet feeder. If the sheets adhere to one another during loading, multiple sheets may be fed in together.

Make sure that the paper has no more than 0.2" / 5 mm of bend. If the paper used is significantly bent, print quality may be degraded.

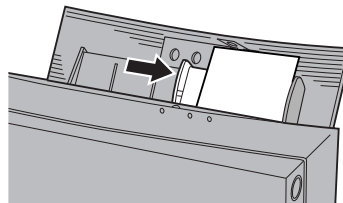
**Note**

For continuous printing on Photographic-Quality Paper (4" x 6" / 100 x 148 mm) or Photographic-Quality Labels, load the guide sheet supplied with the paper into the sheet feeder. Then place the sheets or labels on the guide sheet.



5. Adjust the paper feed guide to the paper size.

Move and adjust the paper feed guide to the width of the paper. Adjust positioning so as not to bend the sheets or create any gap between the sheets and the guide.



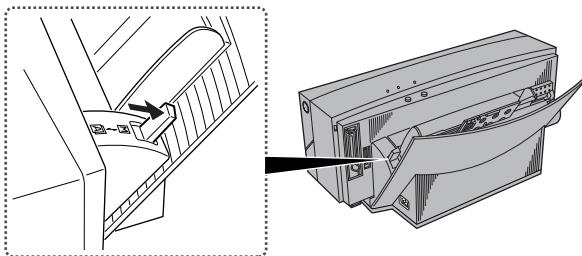
Loading Paper in Manual Feed Mode

Use manual feed mode when printing iron-on transfer sheets, back print film, and other special media (such as cards, thick paper, etc.).

In manual feed mode you should load only one sheet at a time.

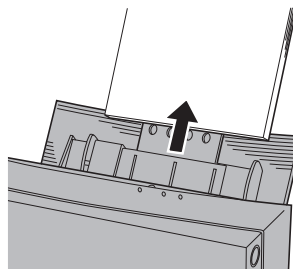
1. Switch the paper feed mode.

Set the paper feed switch to position "M".

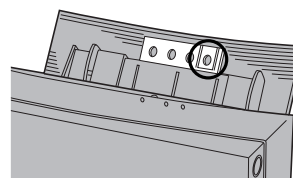


Caution

- Remove any paper from the sheet feeder.

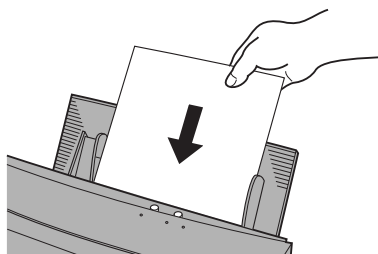


- Make sure that the paper stopper is not lifted.

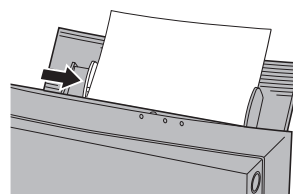


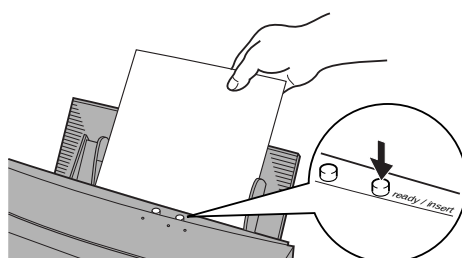
2. Insert paper.

Insert paper straight into the sheet feeder.

**Note**

- Paper that is erased or curled may print incorrectly.
- Make sure that you insert the paper straight. Inserting it at a slant can cause a paper jam.

3. Adjust the paper feed guide to the paper size.

4. Press the *ready / insert* button. The paper is automatically pulled into the printer.

Installing the Printer Driver

Before you can use your printer, you need to install the MD-1300 printer driver software so that your computer can work with the MD-1300 printer.

This section describes how to install the MD-1300 printer driver.

Purpose of the Printer Driver

The printer driver is a control program necessary for proper printing. When printing from an application in Windows, you must use a printer driver that matches the functions of the printer being used. It is necessary to select the printer driver specifically designed for your printer in order to secure the desired printing results. When you use an application to create a document and the printer driver selected is inappropriate for the printer that will be used to print the document, only print settings that match the functions of the printer will be valid. To take advantage of the many features of the MD-1300, create your documents after selecting the MD-1300 printer driver.

System Requirements

The system requirements for the MD-1300 printer driver are as follows:

Computer: IBM PC-AT or compatible

Windows: Microsoft Windows 3.1 or later
Microsoft Windows 95

Disk space required during printing (approximate):

	Monochrome image	Color image
Photo Realistic Printing	16MB	30MB
Photographic-Quality Color Printing	40MB	40MB

Total RAM: 16 MB or more (32 MB or more is recommended)

* The above are approximate figures of the total disc space required when printing at 300 x 300 dpi.



Note

The working disk space needed during printing is automatically erased after printing is completed.

Installing the Printer Driver

The Printer Driver is contained in the ALPS Installation CD ROM. Follow the instructions on the CD sleeve to start up the CD ROM, then read the Readme file for detailed Printer Driver installation instructions. To install click on the printer driver installation button, and then follow the on screen instructions to complete the installation.

Chapter

1

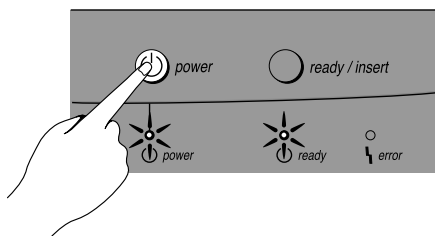
Turning the Power On or Off

Turn your printer and computer on or off by following the steps described below.

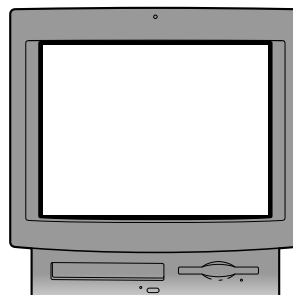
Turning on the Power

Turn on the power by performing the following steps.

1. Push the *power* button on the printer to turn it on.



2. Turn on your computer.



Turning off the Power

When you finished printing, turn off your printing devices by performing the following steps.

1. Quit Windows, and then turn off your computer.
2. Push the *power* button on the printer to turn it off.

Printing Operations

When you have connected the cables to your printer, and have installed the printer driver, you are ready to use your printer. This section describes step by step operations of monochrome and color printing.

Printing (Monochrome)

This section explains how to perform black & white printing on plain paper.

Requirements

You need the following items for black & white printing.

- **Ink cartridge**
Black ink cartridge (Part No. 106005-00)
- **Media**
High Grade Paper (Letter / A4 size)(Part No. 106085-00 / 106085-00-EU), laser paper or plain paper for copiers.
- **Printing data for black printing**
Printing data consisting of text and/or graphics created by an application.

Placing an ink cartridge in your printer

Make sure at least one black ink cartridge is installed in the ink cartridge holders.



Black ink cartridge



Note

- If at least one of the ink cartridges in the four ink cartridge holders can be used in the selected printing mode, the carriage will automatically pick up that ink cartridge.
- See chapter 1, "Getting Your Printer Ready" for directions on installing ink cartridges.
- Installing multiple ink cartridges of the same color allows you to print more pages without stopping to replace spent ink cartridges.

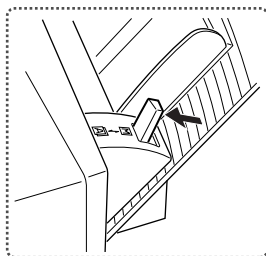


Caution

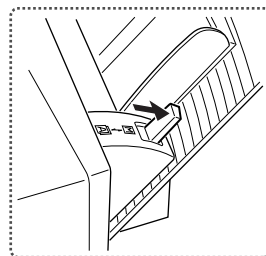
Do not place an ink cartridge directly into the carriage. Doing so may damage the printer.

Loading the paper in your printer

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

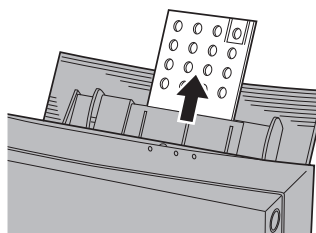


Paper feed switch "A"



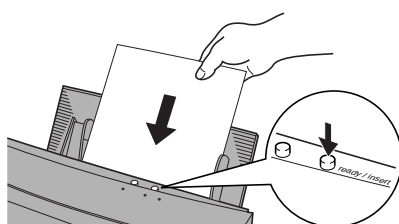
Paper feed switch "M"

2. Fully extend the paper support.

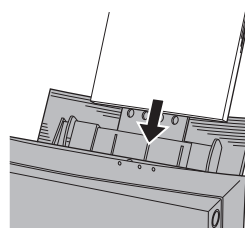


3. Adjust the paper feed guide to the width of the paper.

4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready/insert* button. For automatic feeding, load all of the sheets together.



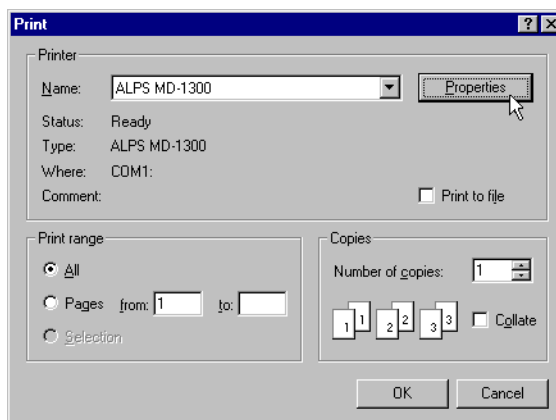
Manual feeding



Automatic feeding

Setting up the printer driver for printing

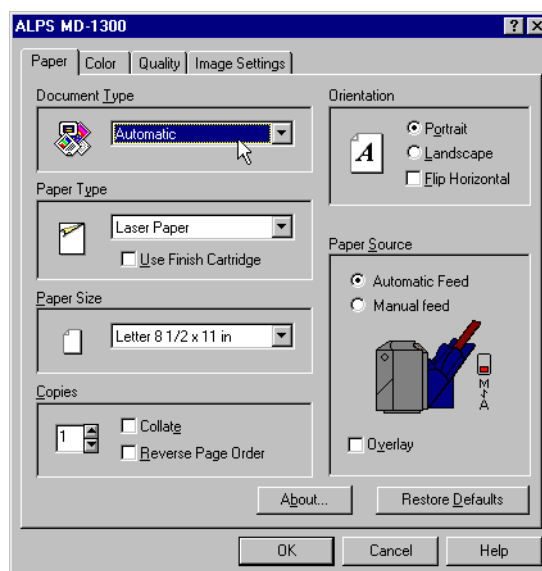
1. In the application you want to print with, select **Print** from the File menu to open the Print dialog box.



Note

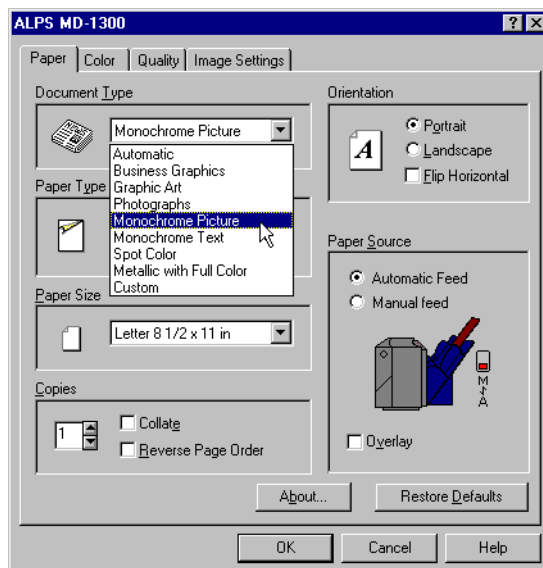
Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may differ slightly from one application to another.

2. Click **Properties**.
ALPS MD-1300 Properties dialog box appears.

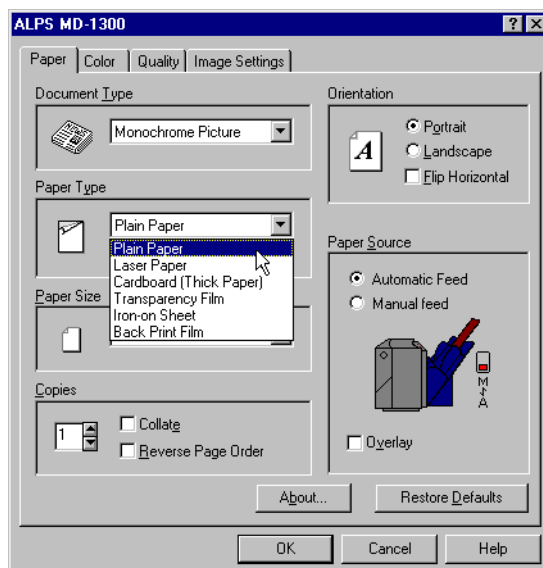


3. Select either Monochrome Picture or Monochrome Text in the Document Type setting of the Paper tab.

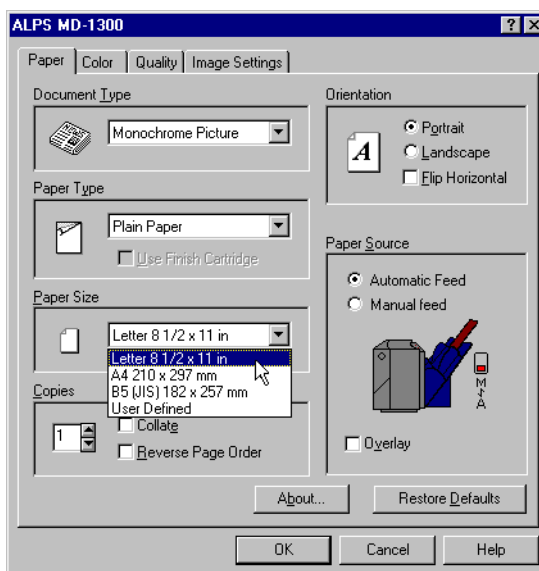
When you select Automatic here, the black printing data will be printed in black, and the color printing data will be printed in full color.



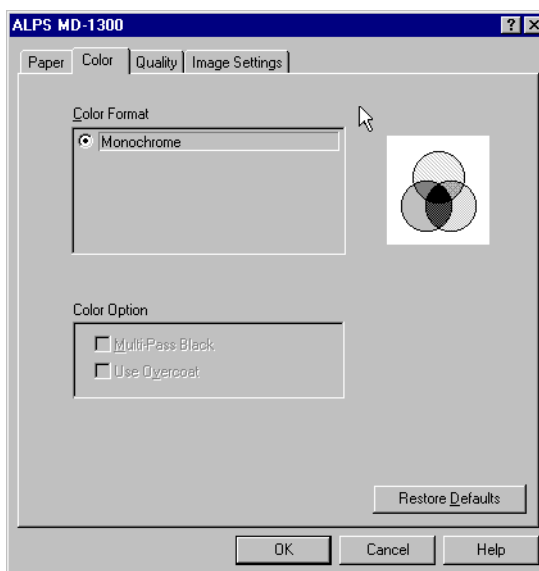
4. Select a paper type in the Paper Type setting.



5. Set the paper size and orientation, and the number of copies as desired.

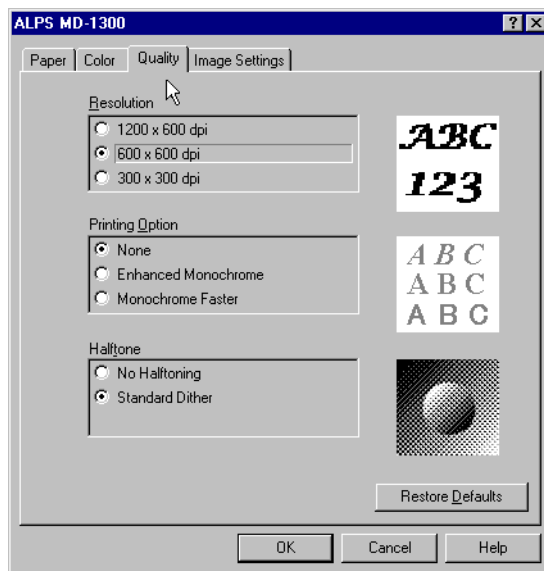


6. Click the Color tab.



Make sure that the Color Format is set to Monochrome.

7. Click the Quality tab.



Set the Resolution and Printing Option as desired.

**Note**

- 1) Checking the Enhanced Monochrome in the Printing Option setting improves the printing results on coarse paper. However, it doubles the printing time and cartridge consumption.
 - 2) Checking the Monochrome Faster in the Printing Option setting shortens the printing time.
 - 3) When printing black in 1200 dpi, select Monochrome Picture or Monochrome Text in the Document Type setting, and Plain Paper or Laser Print Paper in the Paper Type setting in the Paper tab. Then set the Resolution to 1200 x 600 dpi in the Resolution setting in the Quality tab.
-
8. When you complete all the setup, click OK to close the Alps MD-1300 Properties dialog box.
-
9. Click OK in the Print dialog box to start printing.

Printing (Color)

This section describes how to print standard color images on plain paper.

Requirements

You need the following items for standard color printing.

- **Ink cartridges**

Black ink cartridge (Part No. 106005-00)

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No. 106015-00)

Yellow ink cartridge (Part No. 106010-00)

- **Media**

High Grade Paper (Letter / A4 size) (Part No. 106085-00 / 106085-00-EU), laser paper or plain paper for copiers.

- **Printing data for color printing**

Printing data consisting of text and/or graphics created by an application.

Placing ink cartridges in your printer

Make sure one cyan, one magenta, one yellow, and one black ink cartridge are installed. The ink cartridges may be installed in any order.

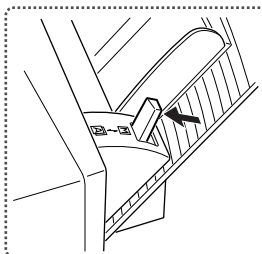


Caution

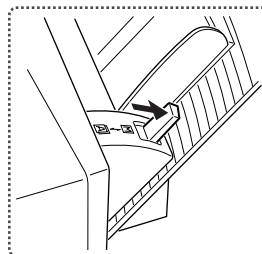
Do not place an ink cartridge directly into the carriage. Doing so may damage the printer.

Loading the paper in your printer

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

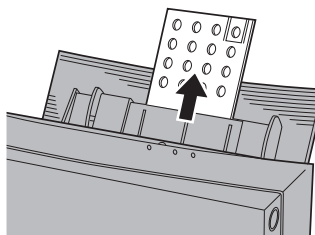


Paper feed switch "A"

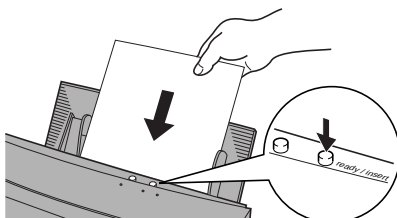


Paper feed switch "M"

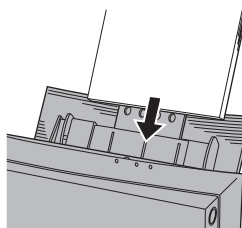
2. Fully extend the paper support.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper into the sheet feeder, and press the *ready / insert* button. For automatic feeding, load all the sheets together.



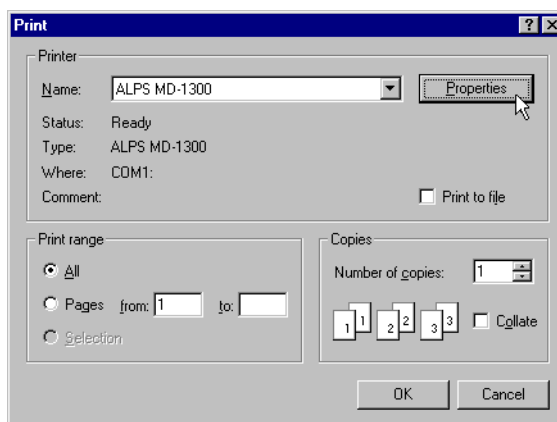
Manual feeding



Automatic feeding

Setting up the printer driver for printing

1. In the application you want to print with, select Print from the File menu to open the Print dialog box.

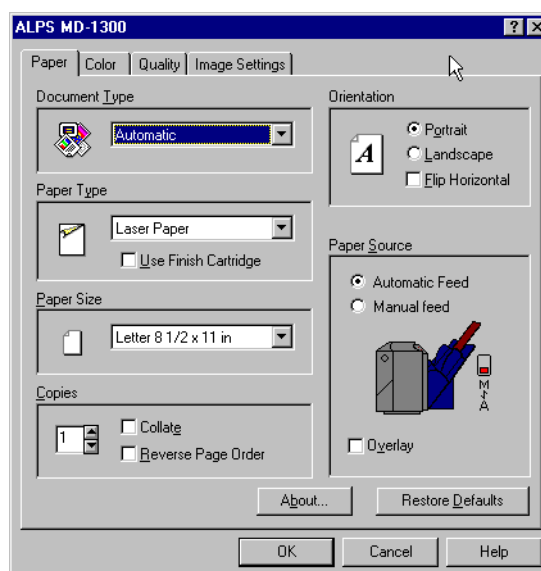


Note

Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may slightly differ from one application to another.

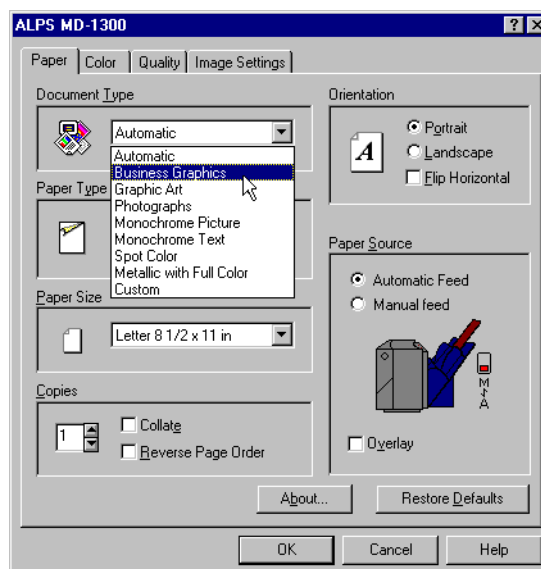
2. Click Properties.

ALPS MD-1300 Properties dialog box appears.

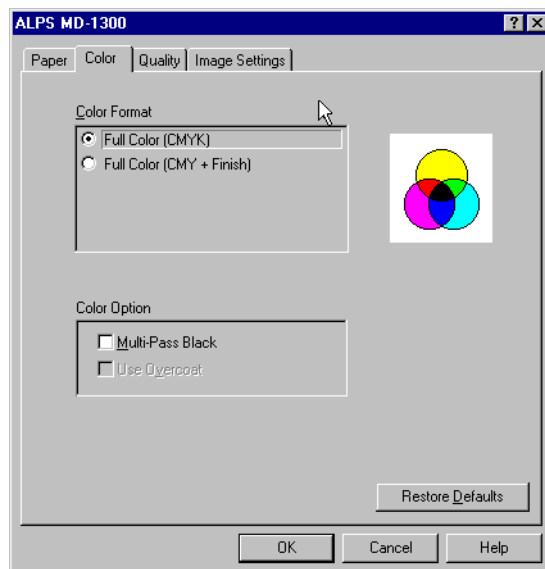


3. Select Business Graphics or Graphic Art or Photographs in the Document Type setting on the Paper tab.

When you select Automatic here, the black & white printing data will be printed in black & white, and the color printing data will be printed in full color.

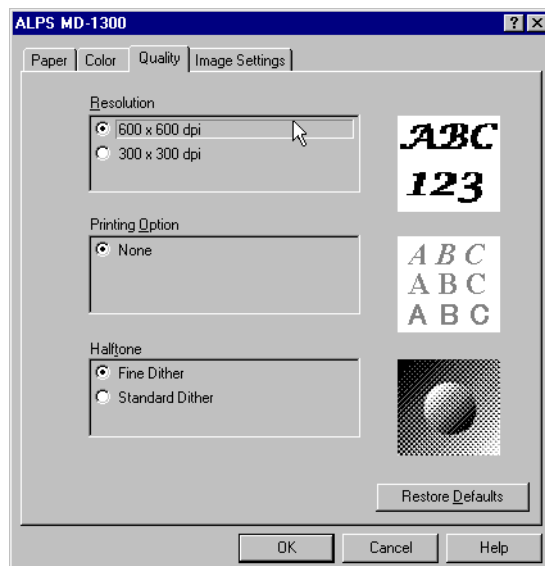


4. Select a paper type, etc. as necessary.
5. Click the Color tab.



Make sure that the Color Format is set to Full Color (CMYK).

6. Click the Quality tab.



Select a desired resolution.

7. When you complete all the setup, click OK to close the Alps MD-1300 Properties dialog box.
8. Click OK in the Print dialog box to start printing.

**Note****Using multicolor ink cartridges:**

- You may perform color printing with a multicolor ink cartridge on one cartridge holder plate, and a black ink cartridge on another.

Please see the “Installing Ink Cartridges” section of this guide for the details of how to install the ink cartridges.

- Multicolor ink cartridges are designed for such uses as printing a small piece of color illustration in the middle of the black & white printing data, and performing special metallic color printing together with the metallic ink cartridges. For this reason, a larger amount of the ribbon is wasted with the multicolor ink cartridges than with the others. Therefore, using multicolor ink cartridges can be more costly than using the regular color ink cartridges.

MD-1300

Chapter 2

Various Printing Operations

Learning to Use the Many Functions of Your Printer

The MD-1300 not only prints outstanding monochrome and full color images but also offers a wide variety of other options, including printing in metallic color and printing on labels, iron-on transfers, and greeting cards.

This chapter will show you how to use these useful functions step by step. Read Chapter 1 of this guide and learn the basic operations of your printer before reading this chapter. We hope you will take full advantage of the many functions of your printer.

Photographic-Quality Color Printer

◀BACK

NEXT▶

Photographic-Quality Color Printing

This section describes how to print Photographic-Quality Color images on Photographic-Quality Paper.

Requirements

You need the following items for Photographic-Quality Color printing.

- **Ink cartridges**
 - Photo cyan ink cartridge (Part No. 105812-00)
 - Photo magenta ink cartridge (Part No. 105814-00)
 - Photo yellow ink cartridge (Part No. 105816-00)
 - Photo overcoat ink cartridge (Part No. 105818-00)
- **Media**
 - Photographic-Quality Paper (8.5" x 11" / A4) (Part No. 105822-00 / 105822-00-EU)
- **The guide sheet** (the thick paper with the written description) included with the set of paper sheets



Caution

Always use Photographic-Quality Paper for Photographic-Quality Color printing. Failure to do so can damage the printer as well as the cartridge ribbon. Up to 20 sheets of paper can be loaded into the sheet feeder at once.

Print surfaces that have been overcoated cannot be used for subsequent printing. If you attempt to do so, the printer may malfunction.

Step 1 ► Prepare the Image to be Printed

Use any application to create the image or document you want to print.

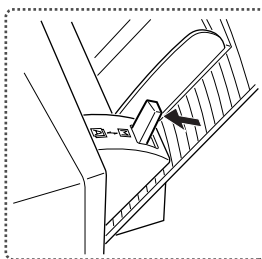
Step 2 ► Install the Photographic-Quality Ink Cartridges

Install the Photographic-Quality ink cartridges into the ink cartridge holders. The ink cartridges may be installed in any order.

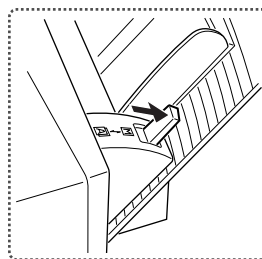
Step 3 ► Load the Photographic-Quality Paper (8.5"x 11" / A4) in Your Printer

You may use either automatic feed mode or manual feed mode to load the paper into your printer.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

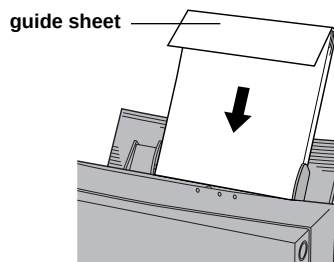


Paper feed switch "A"

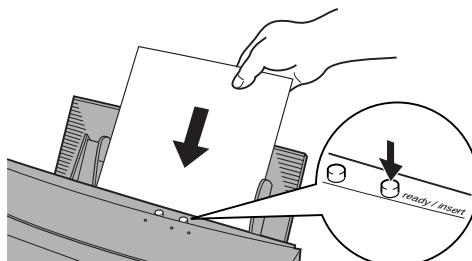


Paper feed switch "M"

2. For automatic feeding, load the guide sheet supplied with the paper into the sheet feeder, placing the printed side facing down. Then, place the Photographic-Quality Paper on this sheet. Only the glossy side of the Photographic-Quality Paper is printable, so be sure to load the sheets with the glossy, printable side up. When handling sheets, hold the bent top of the guide sheet only to avoid smearing or discoloring the glossy printing surface.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper in the sheet feeder, and press the *ready / insert* button.



Note

Only the glossy surface of paper can be subjected to Photographic-Quality printing. Since the opposite surface cannot be printed on, make sure the paper is correctly oriented.

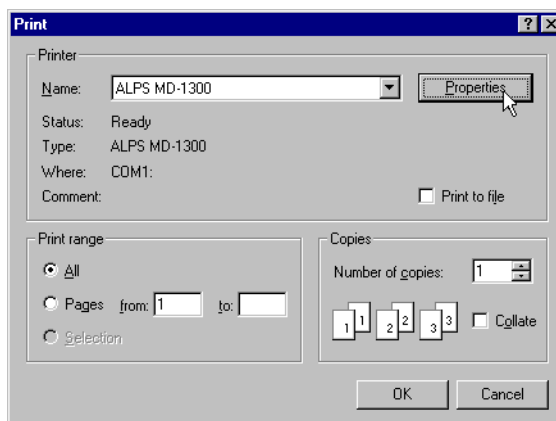


Important

- You may load as many as 20 sheets of Photographic-Quality Paper at one time.
- Fan the sheets before loading them on the sheet feeder. The printer may feed more than one sheet at one time when they are stuck together.
- If you do not load the guide sheet with the Photographic-Quality Paper, the final sheet may not feed properly.
- Always use the Photographic-Quality ink cartridges to print on the Photographic-Quality Paper. Printing with any other combination can damage the cartridge ribbon as well as the paper.
- Remove both the Photographic-Quality Paper and the guide sheet before loading any other type of paper.
- The guide sheet is not reusable. When you load a new set of Photographic-Quality Paper, make sure that you load them with the new guide sheet from the same package.
- Note that when all the Photographic-Quality Paper has been fed from the sheet feeder, the printer will detect that the paper feeder is empty and will not feed the guide sheet. If you try to feed the guide sheet through the printer, it may get damaged. Do not use a damaged guide sheet in the printer.
- Keep both used and unused sheets away from heat, humidity, dust, and direct sunlight.
- The printed image on the Photographic-Quality Paper may discolor. Keep it out of contact with plastic, such as document holders, wallet windows, erasers, hairdressing items, and cosmetic items.
- Keep all unused sheets in the original bag.

Step 4► Set Up the Printer Driver for Printing**1. Select Print from the File menu.**

The following dialog box appears.

**2. Click Properties.**

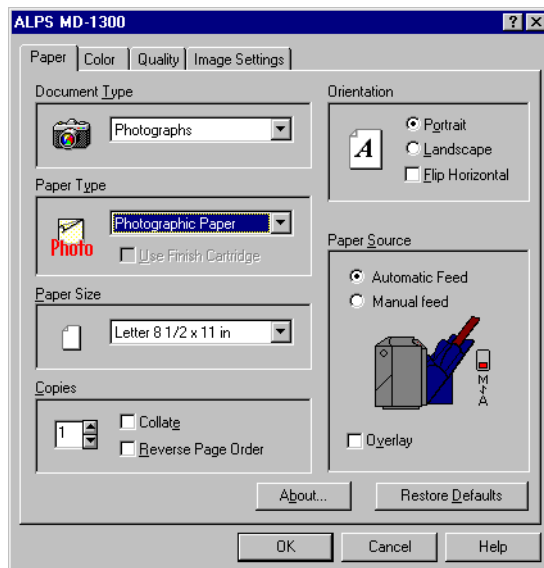
The Document Type dialog box in the ALPS MD-1300 dialog box appears.

**Note**

Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may slightly differ from one application to another.

3. Select Business Graphics, Graphic Art, or Photographs from the Document Types setting in the Paper tab.**4. Select Photographic Paper from the Paper Type setting.**

5. When the following notice window appears, confirm the contents, and click OK.



6. Change other necessary settings.
7. When you complete the setup, click OK to close the dialog box.



Note

If you select Photographic Paper from the Paper Type setting, the overcoat finishing will be automatically provided. It is recommended to print with the overcoat. However, if printing with the overcoat is not desired, click the Color tab, and then uncheck the Use Overcoat check-box in the Option setting.

Step 5 ► Print

Click OK in the Print dialog box, and printing will start.

Printing on Photographic-Quality Paper (4" x 6" / 100 x 148 mm)

This section describes how to print Photographic-Quality Color images on Photographic-Quality Paper. With Photographic-Quality Color printing, you can print continuous-tone images with the same high quality as photographs. In Photographic-Quality Color printing, you can also print with an overcoat ink that produces a smooth, shiny surface like a photograph.

Requirements

You need the following items for Photographic-Quality Color printing.

- **Ink cartridges**

Make sure that you use only the Photographic-Quality ink cartridges listed below.

Photo cyan ink cartridge (Part No. 105812-00)

Photo magenta ink cartridge (Part No. 105814-00)

Photo yellow ink cartridge (Part No. 105816-00)

Photo overcoat ink cartridge (Part No. 105818-00)

- **Media**

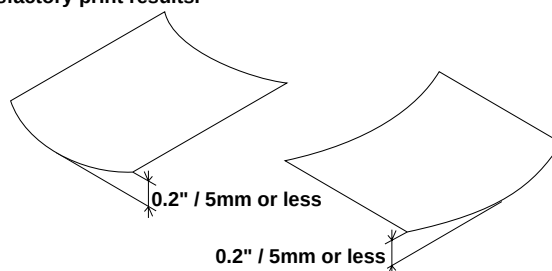
Photographic-Quality Paper (4" x 6" / 100 x 148 mm) (Part No. 105824-00)

- **The guide sheet** (the thick paper with the written description) included with the set of paper sheets



Important

Make sure that none of your Photographic-Quality Paper is warped more than 0.2" / 5 mm. Warped sheets can cause unsatisfactory print results.



Each sheet should have a warp of 0.2" / 5 mm or less when placed on a flat surface.



Important

- Always use Photographic-Quality Paper for Photographic-Quality Color printing. Failure to do so can damage the printer as well as the cartridge ribbon. Up to 20 sheets of paper can be loaded into the sheet feeder at once.
- Print surfaces that have been overcoated cannot be used for subsequent printing. If you attempt to do so, the printer may malfunction.

Step 1 ► Prepare the Image to be Printed

Use any application to create the image or document you want to print.

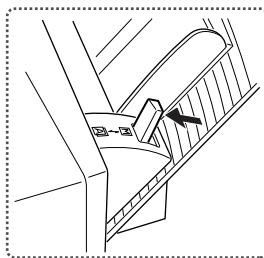
**Step 2 ► Install the Photographic-Quality Ink Cartridges**

Install the Photographic-Quality ink cartridges into the ink cartridge holders. The ink cartridges may be installed in any order.

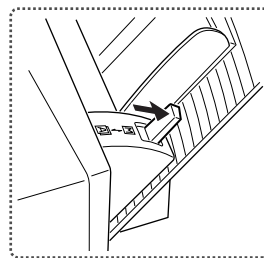
Step 3 ► Load the Photographic-Quality Paper (4"x 6" / 100 x 148 mm) in Your Printer

You may use either automatic feed mode or manual feed mode to load the paper into your printer.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

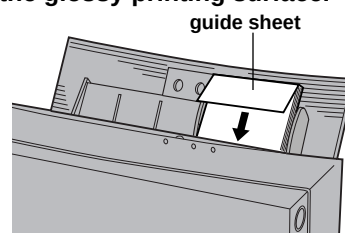


Paper feed switch "A"

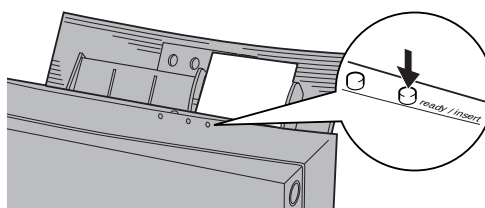


Paper feed switch "M"

2. For automatic feeding, load the guide sheet supplied with the paper into the sheet feeder, placing the printed side facing down. Then, place the Photographic-Quality Paper on the guide sheet. Only the glossy side of the Photographic-Quality Paper is printable, so be sure to load the sheets with the glossy, printable side up. When handling sheets, hold the bent top of the guide sheet only to avoid smearing or discoloring the glossy printing surface.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper in the sheet feeder, and press the *ready / insert* button.



Note

Only the glossy surface of paper can be subjected to Photographic-Quality printing. Since the opposite surface cannot be printed on, make sure the paper is correctly oriented.



Important

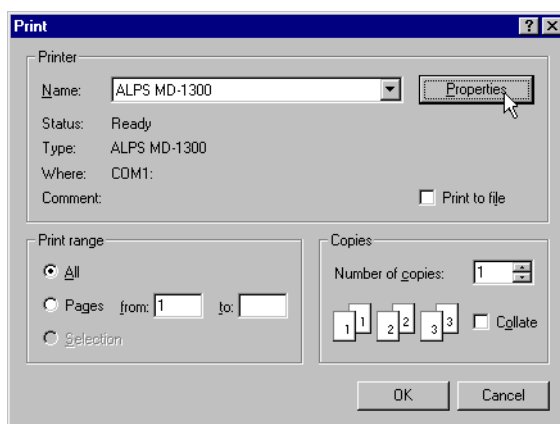
- You may load as many as 20 sheets of Photographic-Quality Paper at one time.
- Fan the sheets before loading them on the sheet feeder. The printer may feed more than one sheet at one time when they are stuck together.
- If you do not load the guide sheet with the Photographic-Quality Paper, the final sheet may not feed properly.
- Always use the Photographic-Quality ink cartridges to print on the Photographic-Quality Paper. Printing with any other combination can damage the cartridge ribbon as well as the paper.
- Remove both the Photographic-Quality Paper and the guide sheet before loading any other type of paper.
- The guide sheet is not reusable. When you load a new set of Photographic-Quality Paper, make sure that you load them with the new guide sheet from the same package.
- Note that when all the Photographic-Quality Paper has been fed from the sheet feeder, the printer will detect that the paper feeder is empty and will not feed the guide sheet. If you try to feed the guide sheet through the printer, it may get damaged. Do not use a damaged guide sheet in the printer.

- Keep both used and unused sheets away from heat, humidity, dust, and direct sunlight.
- A printed image on Photographic-Quality Paper may discolor. Keep it out of contact with plastic, such as document holders, wallet windows, erasers, hairdressing items, and cosmetic items.
- Keep all unused sheets in the original bag.

Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu.

The following dialog box appears.



2. Click Properties.

The Document Type dialog box in the ALPS MD-1300 dialog box appears.

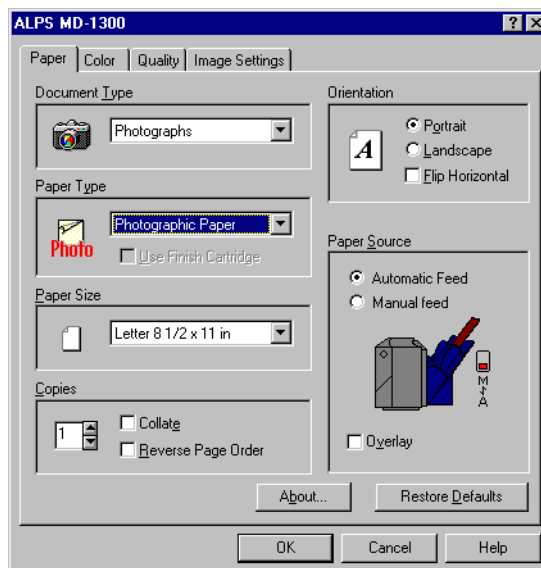
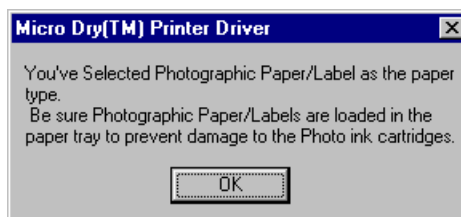


Important

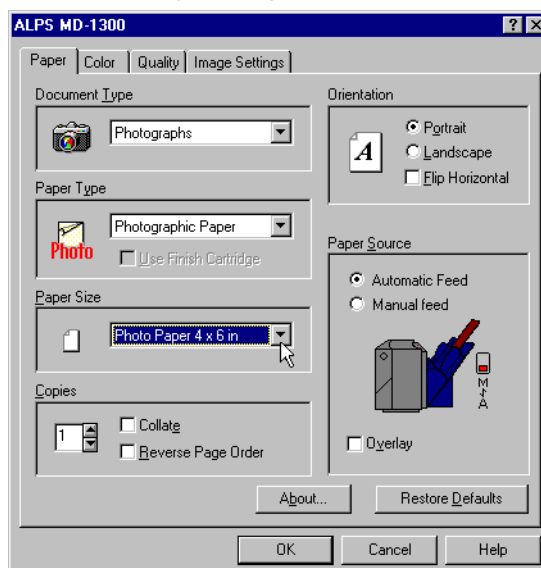
Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may slightly differ from one application to another.

3. Select Business Graphics, Graphic Art, or Photographs from the Document Types setting in the Paper tab.
4. Select Photographic Paper from the Paper Type setting.

5. When the following notice window appears, confirm the contents and click OK.



6. Select Photo Paper 4 x 6 in from the Paper Size setting.
7. Change other necessary settings.



8. When you complete the setup, click OK to close the dialog box.



Note

If you select Photographic Paper from the Paper Type setting, the overcoat finishing will be automatically provided. It is recommended to print with the overcoat. However, if printing with the overcoat is not desired, click the Color tab, and then uncheck the Use Overcoat check-box in the Option setting.

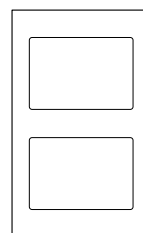
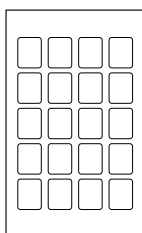
Step 5 ► Print

Click OK in the Print dialog box and printing will start.

Printing on Photographic-Quality Labels

This section describes how to print Photographic Quality Color images on Photographic-Quality Labels. The Photographic-Quality Labels are available in the following two types.

Photographic-Quality Labels (20 stickers) **Photographic-Quality Labels (2 stickers)**
 (Part No. 105850-00) (Part No. 105848-00)



Photographic-Quality Labels may be used with a variety of items, such as business cards, greeting cards and name tags.

Requirements

You need the following items for printing on the Photographic-Quality Labels.

- **Ink cartridges**

Make sure that you use only the Photographic-Quality ink cartridges listed below.

Photo cyan ink cartridge (Part No. 105812-00)

Photo magenta ink cartridge (Part No. 105814-00)

Photo yellow ink cartridge (Part No. 105816-00)

Photo overcoat ink cartridge (Part No. 105818-00)

- **Media**

Photographic-Quality Labels (2 stickers) (Part No. 105848-00)

or

Photographic-Quality Labels (20 stickers) (Part No. 105850-00)

- **The guide sheet** (the thick paper with the written description) included with the set of paper sheets



Important

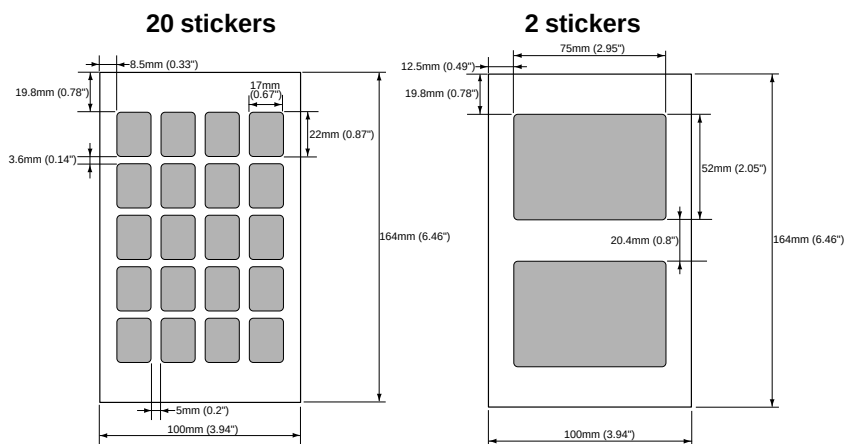
- Always use the above listed ALPS Photographic-Quality Labels. Using some other types of paper can cause the printer to malfunction.
- Print surfaces that have been overcoated cannot be used for subsequent printing. If you attempt to do so, the printer may malfunction.

Step 1 ► Create Data for Printing on Photographic-Quality Labels

Use the application of your choice to create the text and graphics you want, and lay them out within the printable area of a Photographic-Quality Label.

The following explanation will assume the use of Photographic-Quality Labels (2 stickers). Follow the same general sequence when you use Photographic-Quality Labels (20 stickers).

Photographic-Quality Labels templates have been prepared in the Label folder of the ALPS Installation CD-ROM included in the package. When creating data using those templates, please see the section "How to Use Photo Label Templates" in the "Read Me" file on the ALPS Installation CD-ROM for instructions. You may use them, or employ some other application to lay out the data according to the print format shown below.

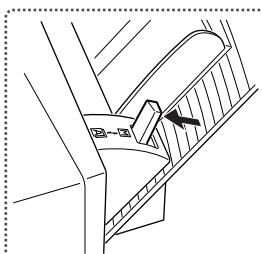
**Step 2 ► Install the Photographic-Quality Ink Cartridges**

Install the Photographic-Quality ink cartridges into the ink cartridge holders. The ink cartridges may be installed in any order.

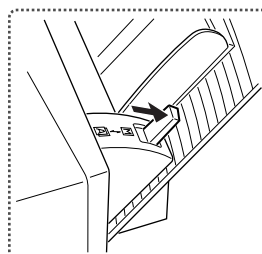
Step 3► Load the Photographic-Quality Labels in Your Printer

You may use either automatic feed mode or manual feed mode to load the paper into your printer.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

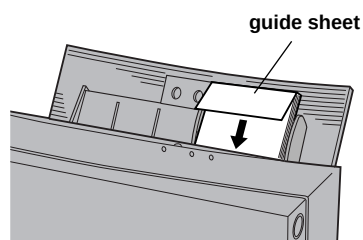


Paper feed switch "A"

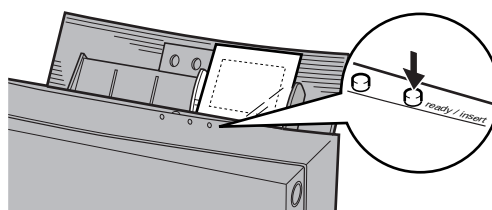


Paper feed switch "M"

2. For automatic feeding, load the guide sheet supplied with the paper into the sheet feeder, placing the printed side facing down. Then, place the Photographic-Quality Labels on the guide sheet. Only the glossy side of the Photographic-Quality Labels is printable, so be sure to load the sheets with the glossy, printable side up. When handling sheets, hold the bent top of the guide sheet only to avoid smearing or discoloring the glossy printing surface.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper in the sheet feeder, and press the *ready / insert* button.



Note

Only the glossy surface of paper can be subjected to Photographic-Quality printing. Since the opposite surface cannot be printed on, make sure the paper is correctly orientated.



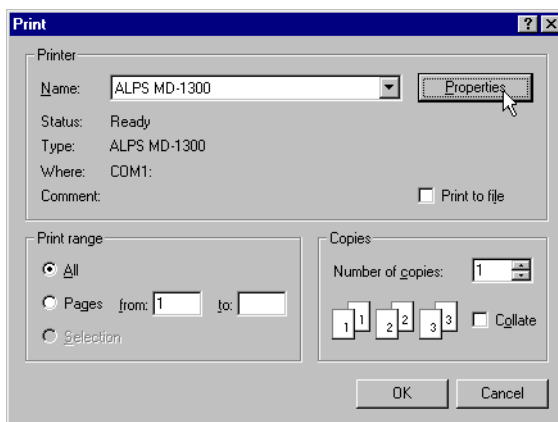
Important

- You may load as many as 20 sheets of Photographic-Quality Labels at one time.
- Fan the sheets before loading them on the sheet feeder. The printer may feed more than one sheet at one time when they are stuck together.
- If you do not load the guide sheet with the Photographic-Quality Labels, the final sheet may not feed properly.
- Always use the Photographic-Quality ink cartridges to print on the Photographic-Quality Labels. Printing with any other combination can damage the cartridge ribbon as well as the paper.
- Remove both the Photographic-Quality Labels and the guide sheet before loading any other type of paper.
- The guide sheet is not reusable. When you load a new set of Photographic-Quality Labels, make sure that you load them with the new guide sheet from the same package.
- Note that when all the Photographic-Quality Labels have been fed from the sheet feeder, the printer will detect that the paper feeder is empty and will not feed the guide sheet. If you try to feed the guide sheet through the printer, it may get damaged. Do not use a damaged guide sheet in the printer.
- Keep both used and unused sheets away from heat, humidity, dust, and direct sunlight.
- The printed image on Photographic-Quality Labels may discolor. Keep it out of contact with plastic, such as document holders, wallet windows, erasers, hairdressing items, and cosmetic items.
- Keep all unused sheets in the original bag.

Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu.

The following dialog box appears.



2. Click Properties.

The Document Type dialog box in the ALPS MD-1300 dialog box appears.



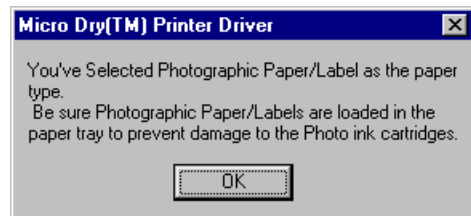
Important

Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may slightly differ from one application to another.

3. Select Business Graphics, Graphic Art, or Photographs from the Document Types setting in the Paper tab.

4. Select Photographic Label from the Paper Type setting.

5. When the following notice window appears, confirm the contents and click OK.



6. Change other necessary settings.

7. When you complete the setup, click OK to close the dialog box.



Note

If you select Photographic Paper from the Paper Type setting, the overcoat finishing will be automatically provided. It is recommended to print with the overcoat. However, if printing with the overcoat is not desired, click the Color tab, and then uncheck the Use Overcoat check-box in the Option setting.

Step 5 ► Print

Click OK in the Print dialog box, and printing will start.

Printing Full Color Data at 1200 x 600 dpi

Use the steps outlined here for printing data in enhanced quality. Enhanced quality allows you to print on Photo Realistic Paper and High Grade Paper at an exceptionally high resolution of 1200 x 600 dpi, and to finish using a Finish cartridge. In this printing mode, the images produced have colors and tones almost like photographs.

Requirements

For full color 1200 x 600 dpi printing, you need the following items.

- **Ink cartridges**

Cyan ink cartridge (Part No. 106020-00)
Magenta ink cartridge (Part No. 106015-00)
Yellow ink cartridge (Part No. 106010-00)
Finish cartridge (Part No. 106054-00)



Note

Please note that full color 1200 x 600 dpi printing uses only cyan, magenta, and yellow ink cartridges, with no black cartridge.

- **Media**

Photo Realistic Paper (Letter / A4 Size) (Part No. 105720-00 / 105720-00-EU)
High Grade Paper (Letter / A4 size) (Part No. 106085-00 / 106085-00-EU)
Photo Realistic Paper (4" x 6" / 100 x 148 mm) (Part No. 105721-00)
Photo Realistic Labels (Part No. 105108-00)



Note

- Always use the media listed above for full color 1200 x 600 dpi printing.
- Before using Photo Realistic Paper, make sure that each sheet of paper is not warped more than 0.2". Using a sheet warped too much can cause unsatisfactory print results. To see how much the sheets are warped, place one sheet at a time on a flat surface.

Step 1 ► Prepare the Image to be Printed

Use any application to create the image or document you want to print.

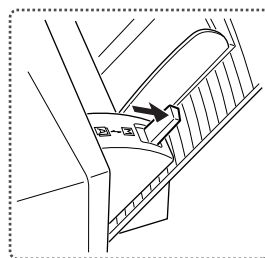
Step 2► Install the Ink Cartridges

Install one cyan, one magenta, and one yellow ink cartridge, and one Finish cartridge in the ink cartridge holders. The cartridges may be installed in any order.

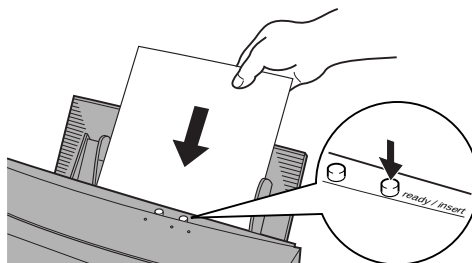
Step 3► Load Paper

Manual feed mode is used for this printing.

1. Set the paper feed switch to position "M".



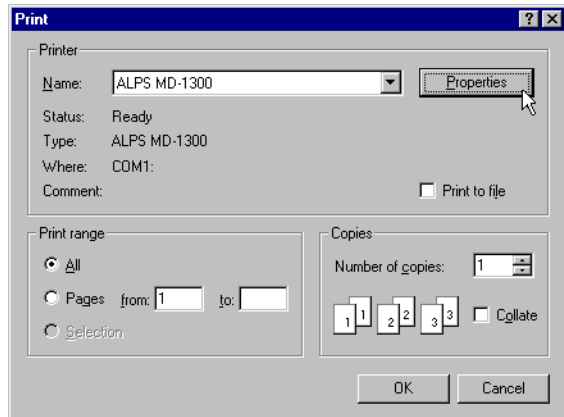
2. For Photo Realistic Paper (Letter / A4 size) or laser paper, fully extend the paper support.
3. Adjust the paper feed guide to the width of the paper plus several millimeters.
4. Load one sheet of paper in the sheet feeder, and press the *ready/insert* button.

**Note**

- Be sure to manually feed Photo Realistic Paper and Labels one at a time.
- For Photo Realistic Paper and Labels, load so that the glossy surface faces upward.
- Provide a gap of several millimeters between the paper feed guide and Photo Realistic Paper and Labels. Otherwise, paper may not feed correctly.
- Laser paper and High Grade Paper can be continuously printed using automatic feeding. To do so, load the paper by placing the paper feed switch in position "A".

Step 4 ► Set Up the Printer Driver for Printing

1. In the application you want to print with, select Print from the File menu to open the Print dialog box.

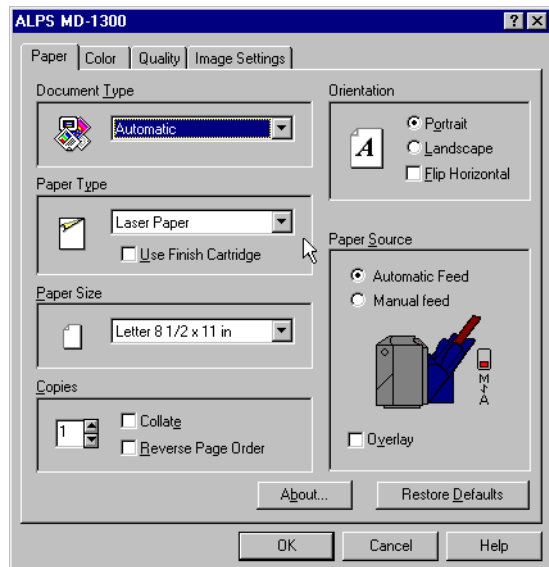


Note

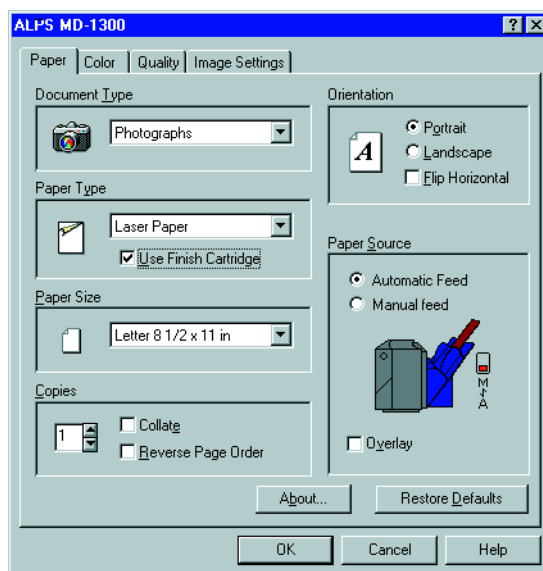
Please note that the procedure for opening the dialog box of ALPS MD-1300 driver may slightly differ from one application to another.

2. Click Properties.

ALPS MD-1300 Properties dialog box appears.



3. **Select Business Graphics, Graphic Art or Photographs in the Document Type setting on the Paper tab.**
4. **Select an option in the Paper Type setting.**
 - For Photo Realistic Paper, select Photo Realistic Paper.
 - For Photo Realistic Labels, select Photo Realistic Label.
 - For laser paper or High Grade Paper, select Laser Paper.

**Note**

Full Color 1200 dpi x 600 dpi printing on Laser / ALPS High Grade paper;

When "Laser Paper" is selected the "Use Finish Cartridge" check box must be checked.

Alternatively, select "Full Color (CMY + Finish)" in the "Color Format" section of the "Color" tab.

When Photo Realistic Paper or Photo Realistic Label is selected for the Paper Type setting, the other options are automatically set for enhanced quality printing: Resolution is set to 1200 x 600 dpi, Halftone is set to Super Fine Dither, and Color Format is set to Full Color (CMY + Finish).

5. **Select an option in the Paper Size setting.**
For Photo Realistic Paper (4" x 6" / 100 x 148 mm), select Photo Paper 4 x 6 in.

6. **Select an option in the Resolution Setting in the Quality tab.**
For laser paper or High Grade Paper, select 1200 x 600 dpi.
7. **Make any necessary changes to other settings in the Paper tab.**
8. **When you complete all the setup, click OK to close the dialog box.**
9. **Click OK in the Print dialog box to start printing.**

Full Color & Photo Realistic Finishing (Glossy Finish)

Use the steps outlined here for full color printing and photo realistic finishing (glossy finish). Full color data will be printed without using black ink to make the printed image look more natural. Then the image will be finished with a Finish cartridge, to create a glossy effect similar to a Photograph. This method is particularly effective for printing photographic images.

Requirements

For full color printing + photo realistic finishing, you need the following items.

- **Ink cartridge**

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No.106015-00)

Yellow ink cartridge (Part No.106010-00)

Finish cartridge (Part No. 106054-00)

- **Media**

High Grade Paper (Letter / A4 size)(Part No. 106085-00 / 106085-00-EU)

Greeting Card Set (Part No. 106090-00)



Note

When printing 600 x 600 dpi full color + photo realistic finishing, we suggest using High Grade Paper or a Greeting Card Set to obtain the best results.



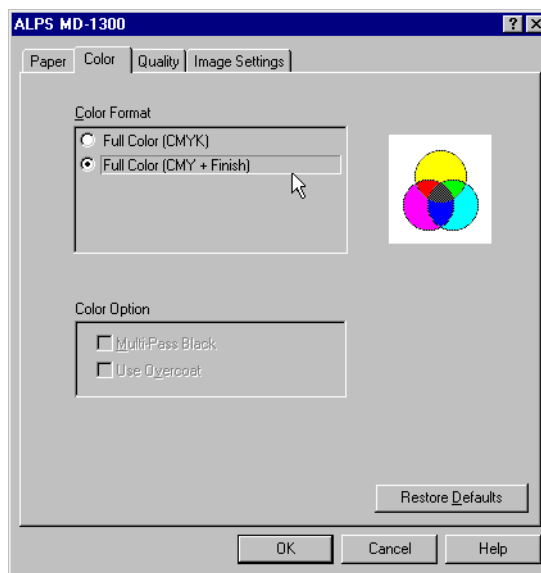
Note

You can print full color (CMYK) and then place a glossy "finish" on the image. You must create a solid black image the same size as the full-color photo. Using the "Overlay mode", print the full color (CMYK) image first. Then insert the Finish cartridge, and print the solid black image as an overlay. You may wish to see the section entitled "Full Color + Spot Color Printing Using Overlay Mode" elsewhere in this Guide.

A good finish cannot be obtained if photo realistic finishing is applied to plain paper that lacks a smooth surface.

Printing Method

For printing in 600 x 600 dpi full color + photo realistic finishing, select Business Graphics, Graphic Art or Photographs from the Document Type setting in the Paper tab in the MD-1300 printer driver dialog box. Then select Full Color (CMY + Finish) from the Color Format setting in the Color tab.



Printing is carried out in the following order: cyan, magenta, yellow, and finishing. For details, see the instructions for the specific type of print paper.



Note

Full color (CMYK) printing + Photo Realistic Finishing can be executed using the "Overlay mode". For details, see "Full Color + Spot Color Printing Using Overlay Mode".

Printing in Spot Color (Metallic and White Color printing)

Spot color printing (metallic and white color printing) is a unique feature of the MD-Series printers. Although most applications are not designed to handle spot color printing, the MD-1300 printer driver allows you to select specific colors or color components that will be replaced by spot colors such as metallic and white inks when printing. You can print with up to four spot colors (or three spot colors plus black) from most applications that allow color specification.

Moreover, because metallic inks are opaque, metallic printing is unaffected by the color of the underlying paper. As a result, you can print not only on colored paper but also on black glossy surfaces or brightly colored surfaces (like those found in greeting cards).

When a white ink is used as undercoat, colored paper can be subjected to full color printing. To provide a white undercoat, see "Undercoating with the White Ink Cartridge".

Types of Spot Color Printing

The following types of spot color printing are possible depending on the types of ink cartridges used.

- **Single spot color printing**

Spot color printing using a single color.

- **Multi spot color printing**

Spot color printing using 2 or more colors. Up to 3 spot colors plus black can be used.

- **Full color + spot color printing**

Full color printing and spot color printing can be combined in two ways, by printing in Overlay mode or by printing all colors in one sequence.

Single Spot Color Printing

Single spot color printing uses just one color. Only the color to be used is installed in the printer. This method is used when an entire image or document is going to be printed in a single color.

This method of printing can be used even when the application you are using does not allow designation of color compositions. Using this method, even full color or grayscale images can be printed in spot color.

Requirements

For single spot color printing you will need the following.

- **Ink cartridges**

For spot color printing at least one ink cartridge is required.

Metallic gold ink cartridge (Part No. 106030-00)

Metallic silver ink cartridge (Part No. 106045-00)

Metallic magenta ink cartridge (Part No. 106035-00)

Metallic cyan ink cartridge (Part No. 106040-00)

White ink cartridge (Part No. 106050-00)

- **Media**

Plain or smooth paper can be used just as with normal color printing.

Since metallic ink is not transparent, printing on colored paper also works well. We suggest using High Grade Paper (Part No. 106085-00 / 106085-00-EU) and Greeting Cards (Part No. 106090-00).

White ink can be printed on iron-on transfer sheets, overhead projector transparencies, or back print films.

Step 1 ► Create Data for Spot Color Printing

Use any application to create the image or document you want to print, and prepare it just as you would for normal printing.



Note

It is not necessary to select a color in the application that matches the color of the ink cartridge in the printer. Leaving the characters and images in black is fine. Color and shaded areas will be printed in varying gradations as dot matrices under the Grayscale setting.

Step 2► Install the Ink Cartridge

Install the metallic ink cartridge you want to print with in cartridge holder 1 (the leftmost holder).

Leave the other holders empty.

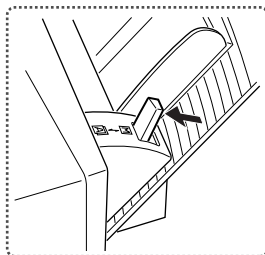
**Note**

If multiple ink cartridges have been loaded, the desired colors can be selected at the time of printing. In this case select **Before Spooling** or **Before Printing** under the **Verify Spot Colors** option.

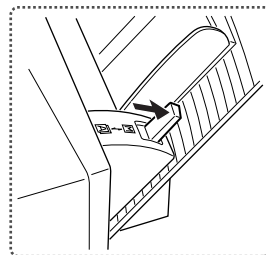
Step 3► Load Paper

The method used for loading paper depends on the paper type. Use manual feed mode for thick paper and greeting cards. For plain paper, laser paper, and High Grade Paper, you may also use automatic feed mode to print a number of sheets at one time. For details, see the section entitled "Loading Paper" in Chapter 1.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

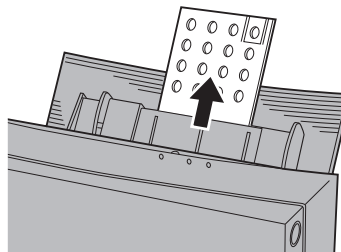


Paper feed switch "A"



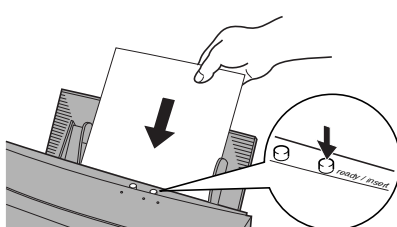
Paper feed switch "M"

2. For Letter / A4 paper, fully extend the paper support.

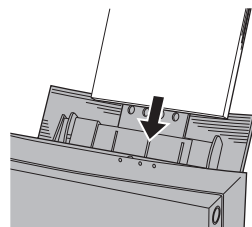


3. Adjust the paper feed guide to the width of the paper.

4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready/insert* button. For automatic feeding, load all of the sheets together.



Manual feeding



Automatic feeding

Step 4► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. When the dialog box appears, click Properties.

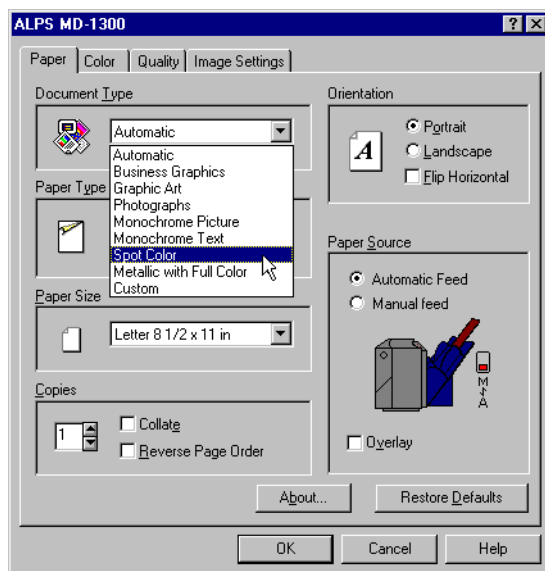
A dialog box appears, where you can set up your printer driver.



Note

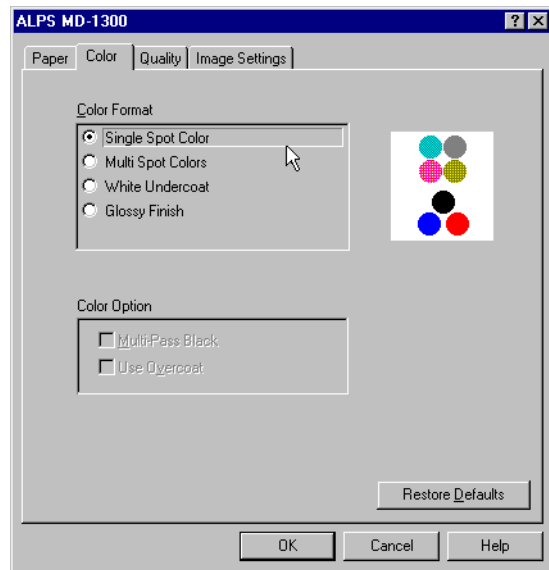
Please note that the procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another.

2. Select Spot Color in the Document Type setting.



3. Change any other settings, such as paper size and orientation, as necessary.
4. Click the Color tab.

- Click the **Single Spot Color** radio button in the **Color Format** setting.



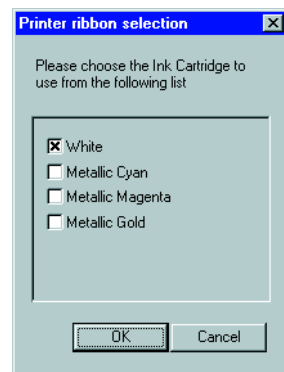
- Click **OK** at the bottom of the window.

The window closes and the display returns to the Print dialog box.

Step 5 ► Print

- Click **Print** in the **Print** dialog box.

The Printer ribbon selection dialog box appears.



This dialog box indicates which cartridges are currently loaded in the printer.

- Choose an ink cartridge from the list by checking the appropriate box.
- Click **OK** to start printing.

Multi Spot Color Printing

Use the steps outlined here for spot color printing using two or more spot color ink cartridges. By associating each spot color with a color (or color composition) in your application, you can print with as many as four spot colors (or three spot colors and black). You can use this method with most applications that support color.

Requirements

For multi spot color printing you will need the following.

- **Ink cartridges**

When printing with multiple spot color inks as many as four of the following ink cartridges can be used.

Metallic gold ink cartridge (Part No. 106030-00)

Metallic silver ink cartridge (Part No. 106045-00)

Metallic magenta ink cartridge (Part No. 106035-00)

Metallic cyan ink cartridge (Part No. 106040-00)

Black ink cartridge (Part No. 106005-00)

White ink cartridge (Part No. 106050-00)

Spot color ink cartridges and a black ink cartridge can be used at the same time just by installing a black ink cartridge along with the spot color ink cartridges you are using. No more than four ink cartridges can be used at one time.

- **Media**

Plain or smooth paper can be used just as with normal color printing.

Since metallic ink is not transparent, printing on colored paper also works well. We suggest using High Grade Paper (Letter / A4 size) (Part No. 106085-00 / 106085-00-EU) and Greeting Cards (Part No. 106090-00).

Step 1 ► Create Data for Spot Color Printing

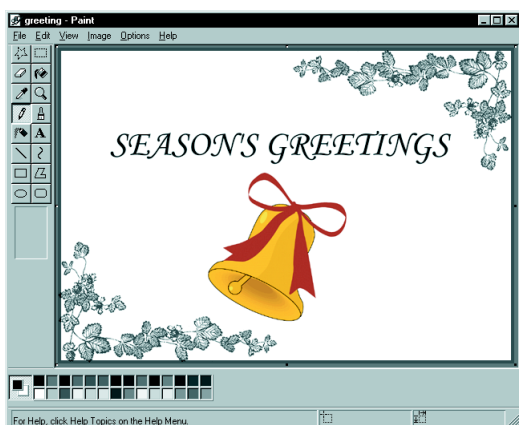
1. Use any application to create the image or document you want to print, and prepare it just as you would for normal printing. The image may contain text as well as graphics.

**Note**

Single spot color printing can produce grayscale images. However, be aware that intermediate gradations are not possible when using more than one spot color at a time.

**Note**

Full color or grayscale images with gradations can be converted to graded black and white images using photo retouch software. In this way, full color and grayscale images can be printed with gradations to some degree.



2. Set the colors corresponding to each spot color you want to use.

For example, set the parts of the image that you want to print in metallic gold to yellow, the parts of the image that you want to print metallic cyan to blue, and so forth. If you are also using black, set the parts of the image that you want to print in black to black.



Note

Many applications have color palettes that allow easy selection of metallic colors.

The colors (and color compositions) associated with spot colors are shown in the following table.

■ Colors (and color compositions) used to indicate spot colors

In multi spot color printing, indicate spot colors by selecting colors in the application that resemble the spot colors.

As much as possible, try to select colors that resemble the spot colors to be printed. In applications that do not have many color choices, such as word processors, closely related colors can be used. In this case, however, check the color output by executing a test print to make sure the correct spot colors are printed.

Spot color	Application color used to indicate the spot color
Metallic Gold	Yellow (or yellow-orange)
Metallic Silver	Gray
Metallic Magenta	Magenta, Red (a red close to magenta)
Metallic Cyan	Cyan, Blue (a blue close to cyan)
White	Light gray (a gray close to white)
(Normal) Black	Normal black (R=G=B=0 or C=M=Y=0, K=100)

The following table indicates the color compositions settings that will most closely resemble the printed results. In applications that allow the user to make color composition settings, adjust the settings as shown below.

■ Tables of color composition settings for spot color printing

- Color compositions using RGB settings (n/255)

Spot color	R	G	B
Metallic Gold	225	160	0
Metallic Silver	189	193	197
Metallic Magenta	163	36	115
Metallic Cyan	0	176	201
White	230	230	230

- Color compositions using RGB settings (n/100%)

Spot color	R	G	B
Metallic Gold	88	63	0
Metallic Silver	74	76	77
Metallic Magenta	64	14	45
Metallic Cyan	0	69	79
White	98	98	98

- Color compositions using CYMK settings (n/100%)

Spot color	C	M	Y	K
Metallic Gold	12	37	100	0
Metallic Silver	26	24	23	0
Metallic Magenta	36	86	55	0
Metallic Cyan	100	31	21	0
White	2	2	2	0



Note

For instructions on changing color composition settings in an application, refer to the manual that came with your application. Depending on the application, a spot color may not print correctly even though the color settings were properly set in the application.

Step 2► Install the Spot Ink Cartridges

Install all the spot ink cartridges for the spot colors you want to use into the ink cartridge holders. The order of the ink cartridges is not important.



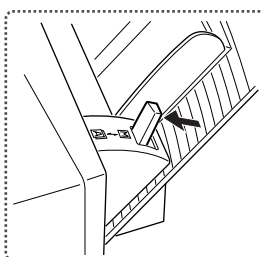
Note

At most, four ink cartridges can be installed. Also, installing one black ink cartridge and three spot color ink cartridges allows spot color and black printing at the same time.

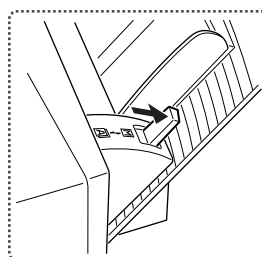
Step 3► Load Paper in Your Printer

The method used for loading paper depends on the paper type. Use manual feed mode for thick paper and greeting cards. For plain paper, laser paper, and High Grade Paper, you may also use automatic feed mode to print a number of sheets at one time. For details, see the section entitled "Loading Paper" in Chapter 1.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

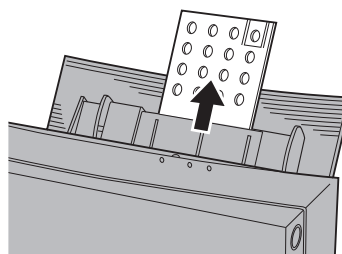


Paper feed switch "A"



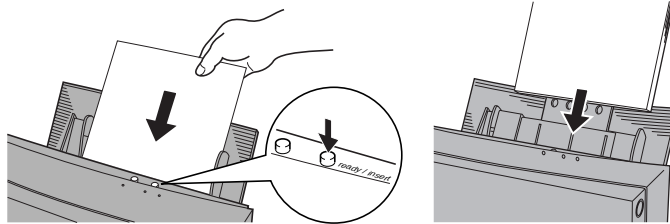
Paper feed switch "M"

2. For Letter / A4 paper, fully extend the paper support.



3. Adjust the paper feed guide to the width of the paper.

4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready / insert* button. For automatic feeding, load all of the sheets together.



Manual feeding

Automatic feeding

Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your software. When the dialog box appears, click Properties.

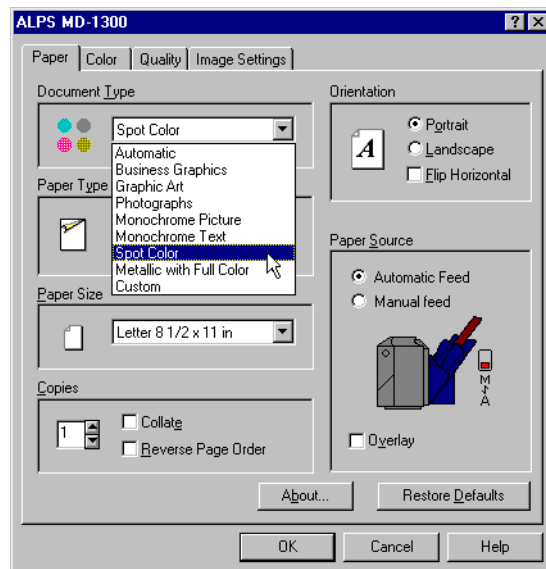
A dialog box appears, where you can set up your printer driver.



Note

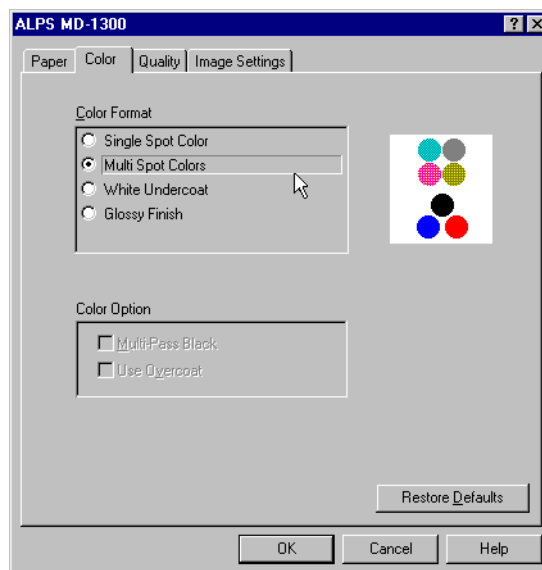
Please note that the dialog displayed and procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another. The Print window shown here is for Windows 95.

2. Select Spot Color in the Document Type setting.



3. Change any other settings, such as paper size and orientation, as necessary.

4. Click the Color tab.
5. Click the Multi Spot Colors radio button in the Color Format setting.



6. Click OK at the bottom of the window.

The window closes and the display returns to the Print window.

Step 5► Print

1. Click OK in the Print window.

Printing will start.



Note

If the ink cartridge corresponding to a selected spot color is not present, the following window will appear instructing you to install the proper ink cartridge.



Open the front cover of the printer and insert the appropriate ink cartridge. Close the front cover and click on OK to continue printing.

Full Color + Spot Color Printing Using Overlay Mode

Follow these steps for full color + spot color printing using Overlay mode. This method prints twice on the same sheet. After the first printing, the paper remains in the printer and is not ejected. This prevents positioning problems on the second printing.

Requirements

For full color + spot color printing you will need the following.

- **Ink cartridges**

The following ink cartridges can be used with full color + spot color printing.

- Metallic gold ink cartridge (Part No. 106030-00)
- Metallic silver ink cartridge (Part No. 106045-00)
- Metallic magenta ink cartridge (Part No. 106035-00)
- Metallic cyan ink cartridge (Part No. 106040-00)
- White ink cartridge (Part No. 106050-00)
- Cyan ink cartridge (Part No. 106020-00)
- Magenta ink cartridge (Part No. 106015-00)
- Yellow ink cartridge (Part No. 106010-00)
- Black ink cartridge (Part No. 106005-00)

- **Media**

Plain paper, smooth paper, or greeting cards can be used just as with normal color printing. We suggest using High Grade Paper (Part No. 106085-00 / 106085-00-EU).

Step 1 ► Create an Image for Full Color + Spot Color Printing

1. Prepare the full color image and the spot color images separately.



2. Create one file containing the full color image and a second file containing the spot color image.



Note

- In applications that allow multiple pages, the spot color image may be prepared on page 1 and the full color image on page 2.
- For instructions on indicating spot colors on page containing the spot colors, please refer to the section titled "Multi Spot Color Printing" earlier in this guide.
- To make it easier to correctly position the full color and the spot color images, prepare all the data in a single file and then make two copies of the file. In one file delete the spot color data and, in the other file, delete the full color data.
- When you want to print full color + spot color without splitting the two sets of data, place the spot color data on top of the full color data and set its color to white so that it does not print. Positioning the spot color data above the full color data and setting its color to white makes it relatively easy to use the same image for both sets of data.

Step 2► Prepare the Spot Color Image

For full color + spot color printing using Overlay mode, print the spot color image first.

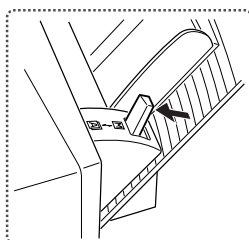
**Step 3► Install the Spot Color Ink Cartridges**

Install the spot color ink cartridges required for this image.

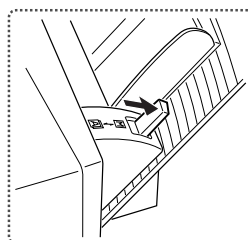
Step 4► Load Paper in Your Printer

The method used for loading paper depends on the paper type. Use manual feed mode for thick paper and greeting cards. For plain paper, laser paper, and High Grade Paper, you may also use automatic feed mode to print a number of sheets at one time. For details, see the section entitled "Loading Paper" in Chapter 1.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

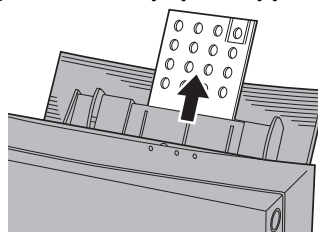


Paper feed switch "A"

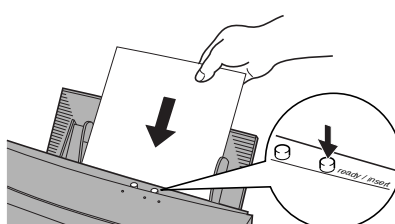


Paper feed switch "M"

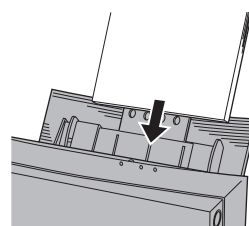
2. For Letter / A4 paper, fully extend the paper support.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready / insert* button. For automatic feeding, load all of the sheets together.



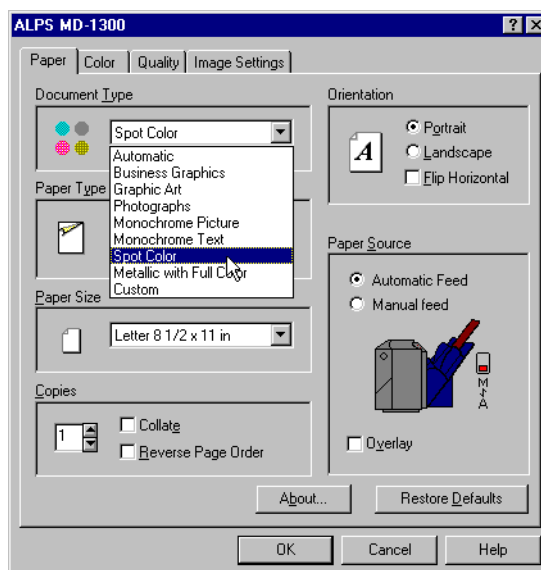
Manual feeding



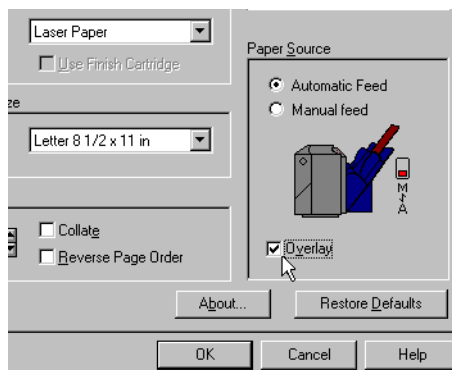
Automatic feeding

Step 5 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu. Click the Properties button in the Print dialog box.
The printer driver settings window appears and displays the Document Type settings page.
2. Because the spot color image will be printed first, select Spot Color in the Document Type setting.



3. Check the Overlay check box in the Paper Source setting.



Checking this option turns on the Overlay mode so that the page will not be ejected from the printer after it has been printed.

4. Change any other necessary settings such as paper size and type.

5. Click the Color tab.

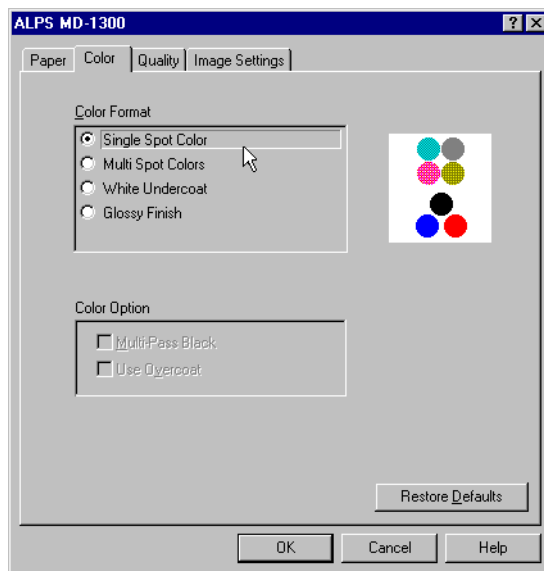
6. Under Color Format, select either Single Spot Color or Multi Spot Colors.



Note

- If you are using only one Spot color, select Single Spot Color.
- If you are printing multiple Spot colors, select Multi Spot Color.

In this example, Single Spot Color is selected.



7. When the printer driver settings are completed, click OK at the bottom left of the window.

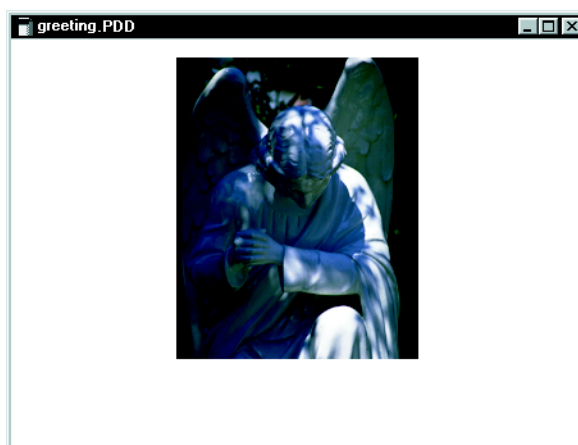
Step 6 ► Print

1. Click OK in the Print dialog box.
Printing will begin.
After the printing is completed, the paper returns to the initial print position without being ejected.

Step 7 ► Prepare the Full Color Data

After the Spot color data is printed, the full color data is printed.

1. Open the full color data file to display it.



Close the Spot color data file if necessary.

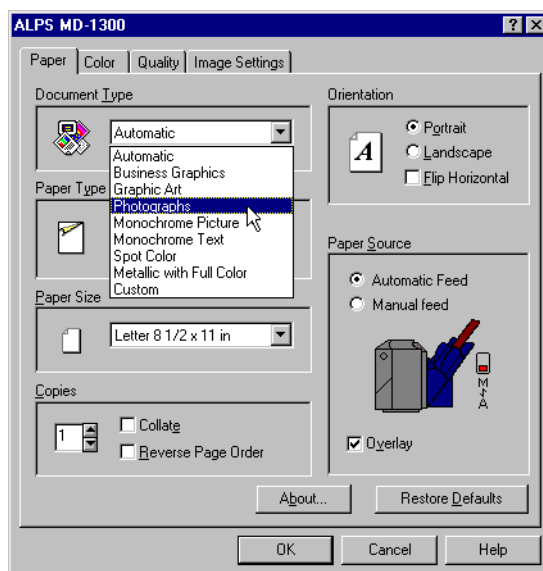
Step 8 ► Change the Ink Cartridges

Remove the spot color ink cartridges from the printer and insert cyan, magenta, yellow, and black ink cartridges.

Step 9 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. Click the Properties button in the Print window.
The printer driver settings window appears and displays the Paper tab.

2. Select Automatic, Business Graphics, Graphic Art or Photographs under the Document Type setting.



3. Change any other necessary settings such as paper size and type.
4. When the printer driver settings are completed, click OK at the bottom left of the window.

Step 10 ► Print

1. Click OK in the Print dialog box.
Printing will begin.

Simultaneous Full Color + Spot Color Printing

This section explains how to print full color + spot color simultaneously. This printing method differentiates between spot color and full color areas depending on their color composition. For this reason, it is necessary to assign the proper color to each area. This printing method is used with applications that allow the user to specify color compositions.

Requirements

For simultaneous full color + spot color printing you will need the following.

- **Ink cartridges**

The following ink cartridges can be used with full color + spot color printing.

Metallic gold ink cartridge (Part No. 106030-00)

Metallic silver ink cartridge (Part No. 106045-00)

Metallic magenta ink cartridge (Part No. 106035-00)

Metallic cyan ink cartridge (Part No. 106040-00)

Multicolor ink cartridge* (Part No. 106025-00)

Black ink cartridge* (Part No. 106005-00)

* The multicolor and black ink cartridges must always be loaded during simultaneous full color + spot color printing.

- **Media**

Spot color printing does not require special paper. Plain paper, smooth paper, or greeting cards can be used just as with normal color printing.



Note

White ink cartridge cannot be used for simultaneous full color + spot color printing.

Step 1 ► Create the Full Color + Spot Color Print Image**1. Create the full color and spot color data to be printed.**

It is not necessary to prepare the spot color and full color images separately as with full color + spot color printing using Overlay mode. The data is prepared on the same page. Areas to be printed with spot ink and those to be printed in full color are indicated by their respective screen colors.

**Note**

There is a small range of color composition values that will be interpreted by the printer as indicating spot colors. Because of this, photographs and other data with large numbers of different colors may have areas that match the spot color designations and print partially in spot color. When printing images that contain data such as photos, it is best to print full color + spot color using Overlay mode.

2. Set the image areas to be printed in spot color to colors that correspond to the spot colors you want to use.

The colors (and color compositions) associated with spot colors are shown in the following tables.

■ Color composition for indicating spot colors

When printing full color and spot color simultaneously, the spot colors are designated by corresponding color compositions on the screen.

• Color compositions using RGB settings (n/255)

Spot color	R	G	B
Metallic Gold	225	160	0
Metallic Silver	189	193	197
Metallic Magenta	163	36	115
Metallic Cyan	0	176	201

• Color compositions using RGB settings (n/100%)

Spot color	R	G	B
Metallic Gold	88	63	0
Metallic Silver	74	76	77
Metallic Magenta	64	14	45
Metallic Cyan	0	69	79

• Color compositions using CMYK settings (n/100%)

Spot color	C	M	Y	K
Metallic Gold	12	37	100	0
Metallic Silver	26	24	23	0
Metallic Magenta	36	86	55	0
Metallic Cyan	100	31	21	0



Note

See your application's manual for instructions on setting up color components in your application. Using CMYK to specify color components may result in colors that do not match the desired spot colors.

Also, some applications make internal adjustments to produce the displayed color components. In such cases, the color components cannot be restricted and therefore spot colors cannot be used.

Color compositions different from those shown above will be interpreted and printed as normal full color.

Step 2► Install the Ink Cartridges

You can print in full color plus two spot colors without having to change cartridges by using the multicolor ink cartridge, the black ink cartridge, and two spot color ink cartridges of your choice. You can also print your data with up to four spot colors by changing the ink cartridges when the message dialog appears.

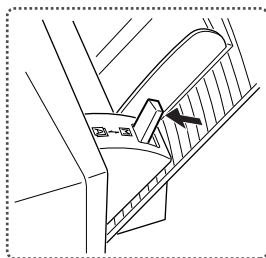
**Note**

The multicolor and black ink cartridges must always be loaded during simultaneous full color + spot color printing.

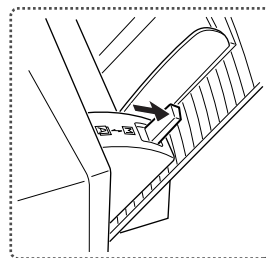
Step 3► Load Paper in Your Printer

The method used for loading paper depends on the paper type. Use manual feed mode for thick paper and greeting cards. For plain paper, laser paper, and High Grade Paper, you may also use automatic feed mode to print a number of sheets at one time. For details, see the section entitled "Loading Paper" in Chapter 1.

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

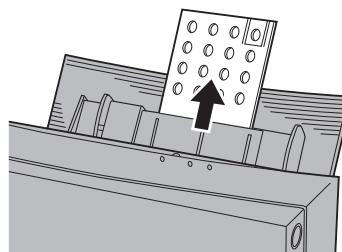


Paper feed switch "A"



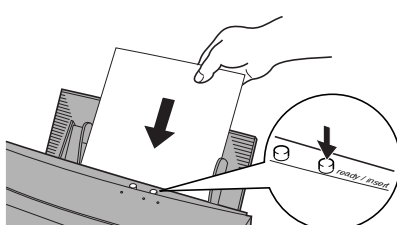
Paper feed switch "M"

2. For Letter / A4 paper, fully extend the paper support.

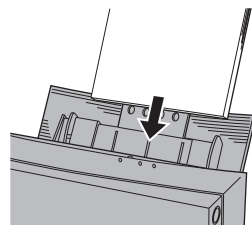


3. Adjust the paper feed guide to the width of the paper.

4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready / insert* button. For automatic feeding, load all of the sheets together.



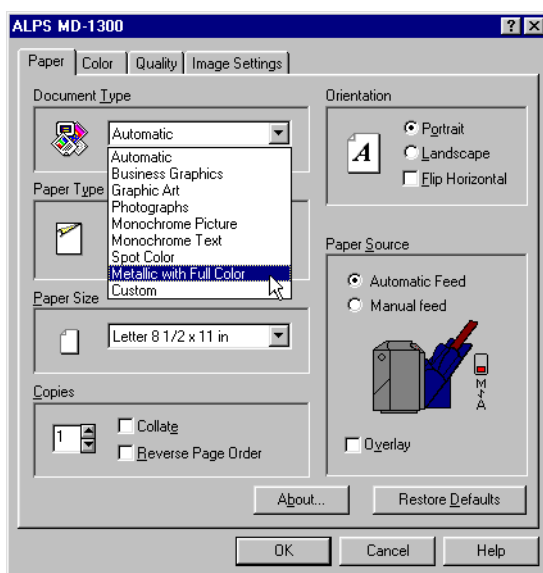
Manual feeding



Automatic feeding

Step 4► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. Click the Properties button in the Print window.
The printer driver settings window appears and displays the Paper tab.
2. Click Metallic with Full Color in the Document Type setting.



Selecting this option allows simultaneous full color and spot color printing.

3. Change any other necessary settings such as paper size and type.
4. When the printer driver settings are completed, click OK at the bottom left of the window.

Step 5 ► Print

1. Click OK in Print dialog box.
Printing will begin.

Printing Greeting Cards

This section describes step by step operation for printing on greeting cards. By combining full color and metallic color printing, you can create many different looks for your greeting cards.

Requirements

For printing on greeting cards, you will need the following.

- **Ink cartridges**

The following ink cartridges can be used.

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No. 106015-00)

Yellow ink cartridge (Part No. 106010-00)

Black ink cartridge (Part No. 106005-00)

Metallic gold ink cartridge (Part No. 106030-00)

Metallic silver ink cartridge (Part No. 106045-00)

Metallic magenta ink cartridge (Part No. 106035-00)

Metallic cyan ink cartridge (Part No. 106040-00)

White ink cartridge (Part No. 106050-00)

Finish ink cartridge (Part No. 106054-00)



Caution

On the glossy side of greeting cards, ALWAYS use metallic color ink cartridges.

- **Media**

Use the greeting cards specifically designed for your printer.

Greeting Card set (Part No. 106090-00)



Caution

- Always use the above listed greeting cards. Using some other type of cards can cause the printer to malfunction.
- Do not bend the greeting cards before loading them on the printer. Once you have bent a card, you may not be able to obtain satisfactory printing results around the crease.

Step 1 ► Prepare the Image to Be Printed

Create the text and graphic objects with an application, and lay them out within the printing area of a greeting card.

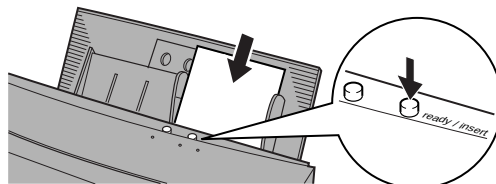
Step 2 ► Install the Ink Cartridges.

1. Install the ink cartridges into the ink cartridge holders.

Step 3 ► Load the Greeting Card into the Printer

Manual feed mode is used for this printing.

1. Set the paper feed switch to position "M".
2. Adjust the paper feed guide to the width of the paper plus several millimeters.
3. Face the printing surface upward, load the card into the sheet feeder, and press the *ready / insert* button.

**Note**

Provide a gap of several millimeters between the paper feed guide and the greeting card. Otherwise, the card may not feed in correctly.

Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. Click the Properties button in the Print window.

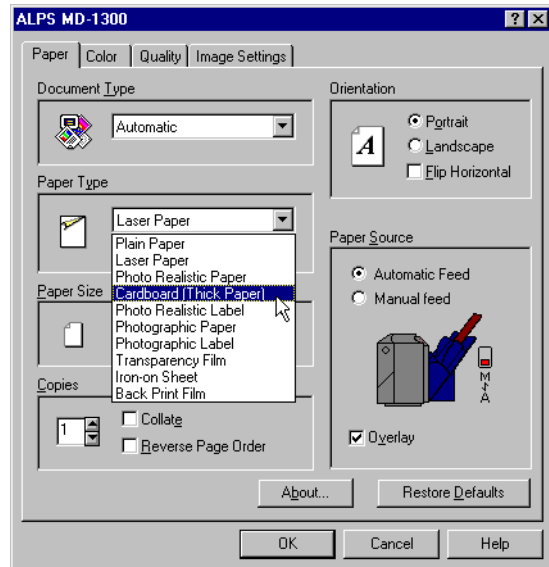
The printer driver settings window appears.

**Note**

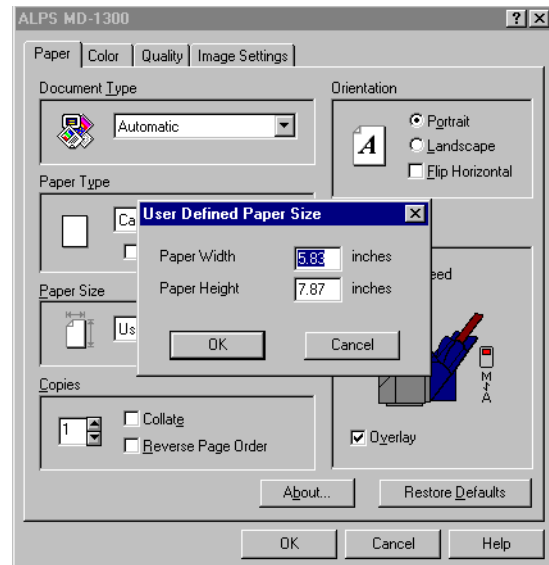
Please note that the procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another.

2. Select the appropriate document type in the Document Type setting.

3. Set the Paper Type to Cardboard (Thick paper).



4. Set the Paper Size to User Defined to open the paper size specification dialog box. Set the Paper Width to 5.83 inches / 148 mm, and the Paper Length to 7.87 inches / 200 mm, and click OK.



5. When you complete all the setup, click OK to close the dialog box.

Step 5 ► Print

1. Click OK in the Print dialog box. Printing will begin.

Printing on Photo Realistic Labels

A photograph of a person can be printed on a Photo Realistic Label to create a photographic label. To do so, photographic data from a scanner or a digital camera is laid out using application software prior to printing.

Requirements

For printing Photo Realistic Labels, you will need the following.

- **Ink cartridges**

The following ink cartridges can be used.

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No. 106015-00)

Yellow ink cartridge (Part No. 106010-00)

Finish cartridge (Part No. 106054-00)

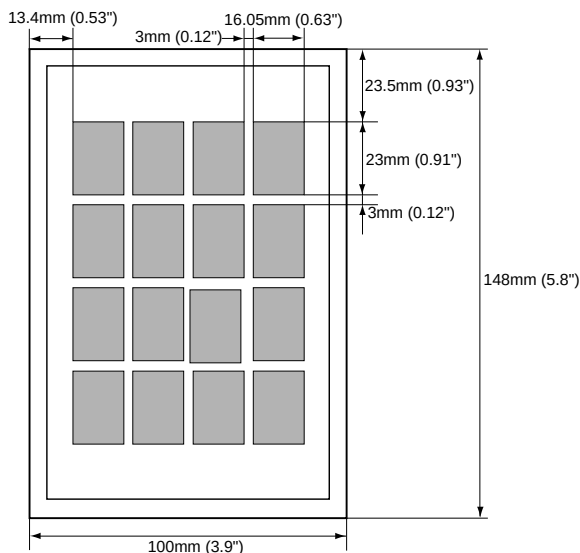
- **Media**

Photo Realistic Labels (4" x 6" / 100 x 148 mm) (Part No. 105108-00)



Note

When Photo Realistic Labels are printed in full color at 1,200 dpi, cyan, magenta, and yellow inks are used to create black. Thus, black ink is not used.



■ Printing is possible within the range shown in rectangles.

Step 1 ► Prepare the Image to Be Printed

Use any suitable application to lay out photographs or pictures in order to create the necessary print data.

Photographic-Quality Label templates have been prepared in the Label folder of the ALPS Installation CD-ROM included in the package. When creating data using those templates, please see the section "How to Use Photo Label Templates" in the "Read Me" file on the ALPS Installation CD-ROM for instructions. You may use them, or employ some other application to lay out the data according to the print format shown below.

Step 2 ► Install the Ink Cartridges

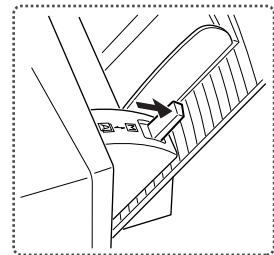
Install one cyan, one magenta, and one yellow ink cartridge, and one Finish cartridge in the ink cartridge holders. The cartridges may be installed in any order.

For details, see Chapter 1, "Installing Ink Cartridges".

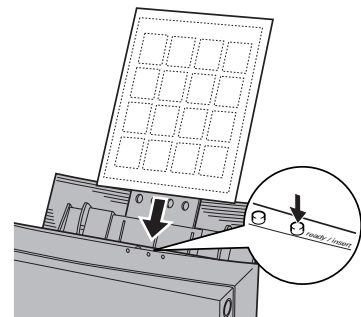
Step 3 ► Load Paper

Use manual feed mode.

1. Set the paper feed switch to position "M".



2. Adjust the paper feed guide to the width of the paper plus several millimeters.
3. Load one sheet of the Photo Realistic Labels into the sheet feeder and press the *ready / insert* button.

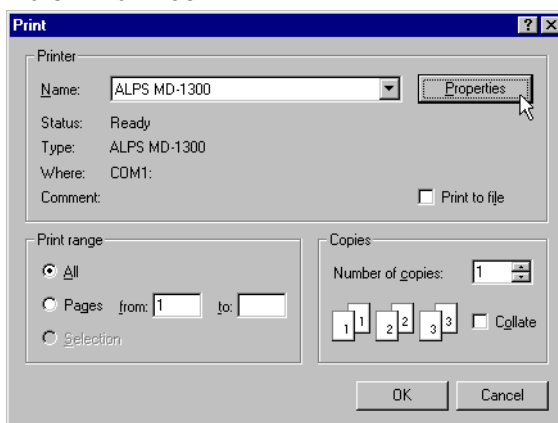


**Note**

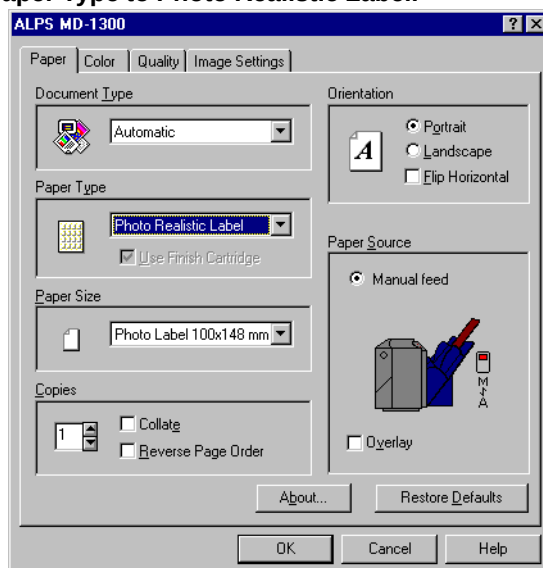
- When printing on Photo Realistic Labels, make sure only one sheet is manually fed at a time.
- To load the Photo Realistic Labels sheet in the sheet feeder, place it with the glossy surface facing upward.
- Provide a gap of several millimeters between the paper feed guide and the Photo Realistic Labels. Otherwise, paper may not feed correctly.

Step 4 ► Open MD-1300 Properties Dialog Box

Select Print from the File menu of your application. Click the Properties button in the Print window.

**Step 5 ► Set the Document and Paper Types**

1. **Make sure that the Paper tab is being displayed.**
Select Automatic, Business Graphics, Graphic Art, or Photographs for the Document Type setting.
2. **Set the Paper Type to Photo Realistic Label.**



3. When you complete the setup, click OK to close the dialog box.



Note

When Paper Type is set to Photo Realistic Label, full color printing at 1,200 dpi is automatically selected. Resolution is set for 1,200 dpi, Halftone for Super Fine Dither, and Color Format for Full Color (CMY + Finish).

Step 6 ► Start Print

1. Click OK in the Print dialog box.
Printing will begin.

Printing on Back Print Film

This section explains the steps for printing illustrations and photographs on back print film. Attaching printed back print film to paper with an iron gives the final image a glossy finish like a photograph. Also, a finishing sheet that can be used to create a matte (non-glossy) finish is included.



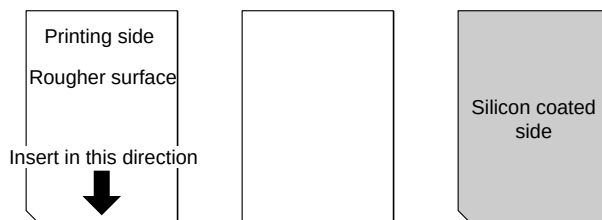
Note

- Back print film printing is basically the same as normal color printing. However, special sheets are used in place of paper. Hold the sheets by the edge when inserting them into the printer to avoid touching the printing side.
- Images printed on back print film should only be transferred to white paper. Colored paper may affect the colors of the printed image.

Requirements

For back print film printing you will need the following.

- Back Print Film
- Finishing Sheet
- Matte Finishing Sheet



The back print film sheets, the finishing sheets, and the matte finishing sheet come together in a single package of Back Print Film (Part No. 106080-00).

- **Paper to transfer the image to :**

We recommend High Grade Paper (Letter / A4 size) (Part No. 106085-00 / 106085-00-EU).

Plain paper may be used but, depending on the pattern of the image, the image may pick up the unevenness in the paper and appear rough. Also, glossy paper traps pockets of air and does not work well.

- **Ink cartridges**

The following ink cartridges may be used.

- Cyan ink cartridge (Part No. 106020-00)
- Magenta ink cartridge (Part No. 106015-00)
- Yellow ink cartridge (Part No. 106010-00)
- Black ink cartridge (Part No. 106005-00)
- White ink cartridge (Part No. 106050-00)

- **Iron**

Use an ordinary household iron. Do not use steam. Set the iron to Dry.

Step 1 ► Prepare the Image to Be Printed

Use an application and create the image to be printed. There are no special considerations in creating the image. Prepare the image just as you would for normal color printing.



Step 2 ► Install the Ink Cartridges and Load the Back Print Film into the Printer

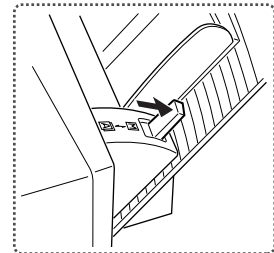
1. Install the ink cartridges into the ink cartridge holders.



Note

When printing on back print film, use only standard color cyan, magenta, yellow, or black ink cartridges. Do not use metallic ink cartridges.

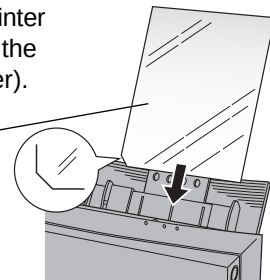
2. Set the paper feed switch to position "M".



3. Insert the back print film into the printer.

Insert the back print film into the printer with the printing side up (so that the cut corner is in the lower left corner).

Back Print Film



4. Adjust the paper feed guide to the paper side.
5. Press the *ready / insert* button, while holding the paper so that it will not fall.

Chapter
2**Step 3** ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. Click the Properties button in the Print window.

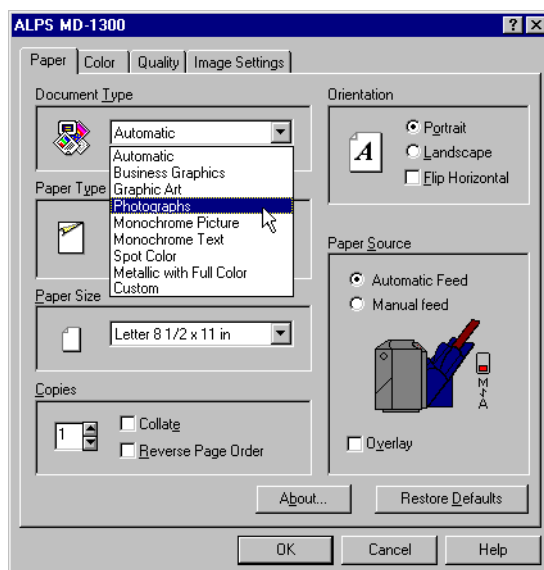
The printer driver settings window appears.

**Note**

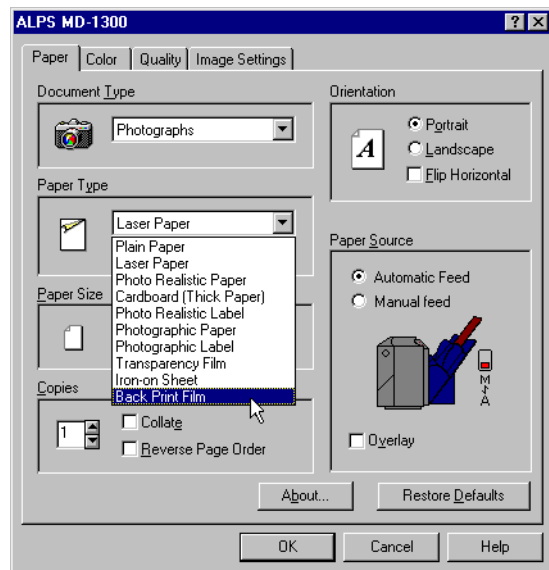
Please note that the procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another.

2. Select the appropriate document type in the Document Type setting.

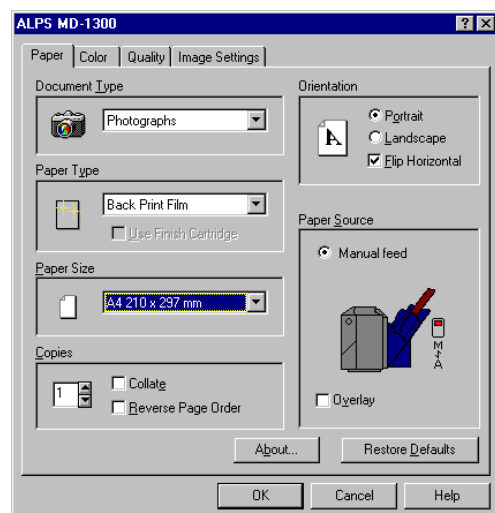
Normally, use Photographs.



3. Set the Paper Type to Back Print Film.



4. Set the Paper Size to A4 210 x 297mm, and change any other necessary settings such as orientation.



When Back Print Film is selected under the Paper Type setting, the paper feed setting in the Paper tab is automatically changed to Manual Feed and the Flip Horizontal check box is checked.

5. When you complete the setup, click OK to close the dialog box.

Step 4► Print

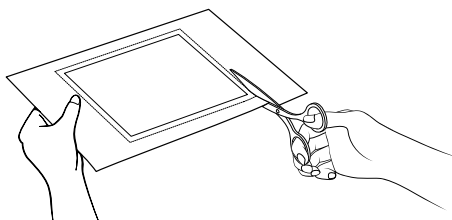
1. Click OK in the Print dialog box.

Printing will begin.

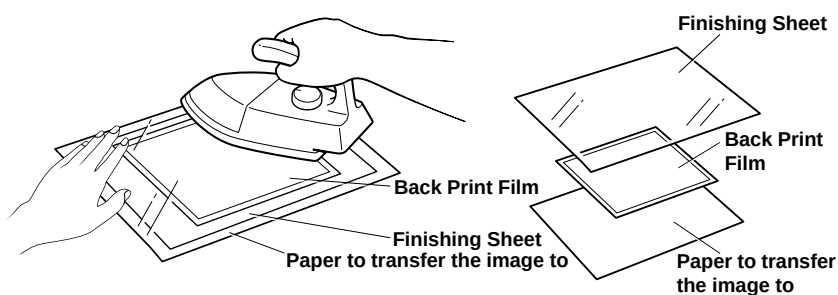
Step 5► Transfer the Image to Paper with an Iron

Transfer the image to paper (using an iron) after printing on the back print film is completed.

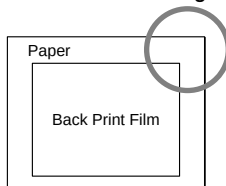
1. Cut around the printed image as close to the edges of the image as possible.



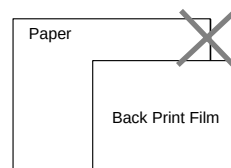
2. Place the film on paper with the image in contact with the paper. Place the finishing sheet on top and apply even pressure with an iron.

**Note**

- Use paper larger than the size of the image.
- Taking care not to let the film slip, firmly apply pressure with the iron until the image is completely attached to the paper.



Back Print Film fits on the paper



Back Print Film extends beyond the edge of the paper

- If insufficient pressure is applied to the image, bubbles can form when the film is lifted off. Make sure to apply enough pressure, particularly around the edges and corners.
- Set the iron for 160°C/320°F (cotton). If the iron has outlet holes for steam, set the iron to Dry and avoid the holes, using a flat part of the iron.

3. Lift off the finishing sheet after the paper and the film have cooled completely.



Note

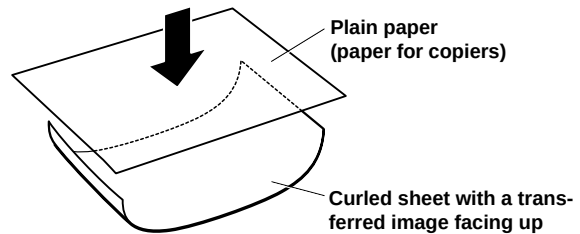
If the paper and film have not cooled completely, the film will not come off smoothly.

4. Starting with the corners, peel off the film, making sure that the film comes off smoothly.

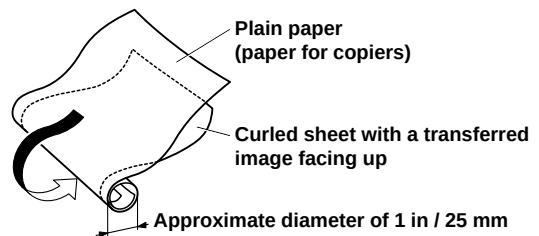
Step 6 ► Curl Correction

When you transfer an image on a thin sheet of paper, the sheet may still be curled up after peeling off the back print film. In this case, correct the curl with the following procedure.

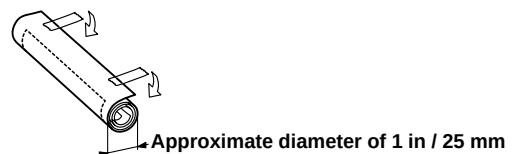
1. Place a sheet of plain paper (paper for copiers) on top of the transferred image on the curled sheet.



2. Roll up both sheets together with an approximate diameter of 1 inch to resist the curl.



3. Leave them rolled up for five minutes.



4. Unroll them, and the curl should be corrected.

**Note**

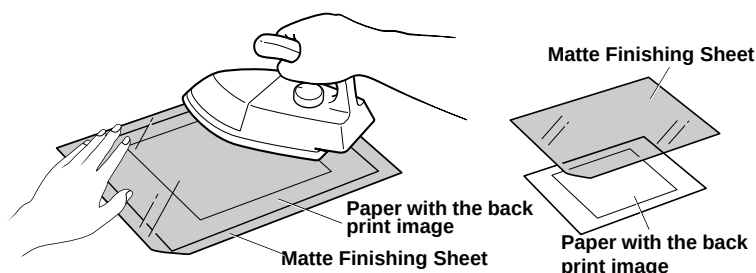
Do not leave the back print film attached to the transfer sheet too long after the transfer. Doing so will make the sheet get curled up more tightly.

Now you have an image with glossy finish.

Step 7► Obtain a Matte Finish

If you want to create a matte finish, perform the following steps after completing the steps for making a glossy finish.

1. Place the matte finishing sheet on the image side of the paper with the silicon coated side face down (so that the cut corner is in the lower left corner).



2. Apply the iron.
Carefully use the iron to apply heat and pressure evenly.
3. After the paper has cooled completely, lift off the matte finishing sheet.

**Note****What to do when the image does not print well**

When printing on back print film in one or more colors, the print results may appear rough if printed in high resolution mode (600 dpi). In such cases, click on Quality tab and select, Standard Dither or Coarse Dither under Halftone before printing. This will make the image appear rougher on the screen but should produce better print results.

Examples

You can use back print film for many different purposes, including posters, book covers, greeting cards, and more.

Making Iron-on Transfers

The special features of the MD-Series printers enable you to create iron-on transfers, which allow you to print illustrations and photos and then transfer them to cloth using an iron. With the iron-on transfer sheets, you can create one-of-a-kind T-shirts, handkerchiefs, and other items using family pictures, names, and so forth.



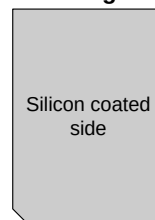
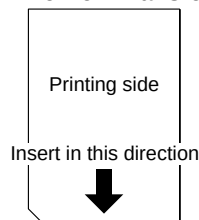
Note

Printing on Iron-on Transfer Sheets is identical to normal color printing except special sheets are used. When placing the sheets in the printer, care should be taken to avoid getting fingerprints, etc., on the printing surface of the sheets. Also, when preparing images, keep in mind that since the final image will be transferred to cloth, extremely fine print data or very small illustrations details may not show up well.

Requirements

For printing on iron-on transfer sheets, you will need the following.

- **Iron-on Transfer Sheets**
- **Finishing Sheet**



The iron-on transfer sheets and the finishing sheet come together in a package of Iron-on Transfer Sheets (Part No. 106075-00). (Use only the sheets specified.)

- **Ink cartridges**

The following ink cartridges can be used.

- Cyan ink cartridge (Part No. 106020-00)
- Magenta ink cartridge (Part No. 106015-00)
- Yellow ink cartridge (Part No. 106010-00)
- Black ink cartridge (Part No. 106005-00)
- White ink cartridge (Part No. 106050-00)



Note

Because the back side of the printed image is face up after it is transferred to cloth, opaque inks such as metallic color cannot be used for iron-ons.

- **Iron**

Use a regular household iron. Do not use steam. Set the iron to Dry.

- **Cloth to transfer the image to (T-shirt, handkerchief, etc.)**

Most cloth that is fairly smooth will work fine. The transferred image may peel off in the laundry if the cloth stretches or shrinks a lot, does not withstand heat well, or has a nap. These kinds of cloth should be avoided.

**Note**

Use iron-ons only on white cloth. Black or other colors will affect the printed color of the image.

Step 1 ► Prepare the Image to Be Printed

Use an application and create the data to be printed.

There are no special considerations for creating the data. Create the data just as you would for black or full color printing.

**Note**

- Because each iron-on transfer sheet can only be printed on once, try to use as much of the sheet as possible. If a 1/2 inch gap is left between images, several images can be printed on a single sheet. (Use a single sheet to create an image for several different pieces of cloth.)
- Large images that require more than one sheet can also be created.

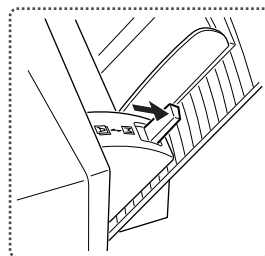
Step 2 ► Install the Ink Cartridges and Load the Iron-On Transfer Sheet into the Printer

1. Install the ink cartridges into the ink cartridge holders.

**Note**

When printing on iron-on transfer sheets, use only standard color cyan, magenta, yellow, or black ink cartridges. Do not use metallic ink cartridges.

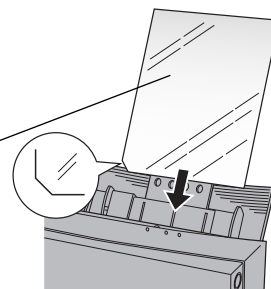
2. Set the paper feed switch to position "M".



3. Insert the iron-on transfer sheet into the printer.

Insert the iron-on transfer sheet into the printer with the printing side up (so that the cut corner is in the lower left corner).

Iron-on Transfer Sheet



4. Adjust the paper feed guide to the paper size.

5. Press the *ready / insert* button, while holding the paper so that it will not fall.

Step 3► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. Click the Properties button in the Printer Setup window.

The printer driver settings window appears.

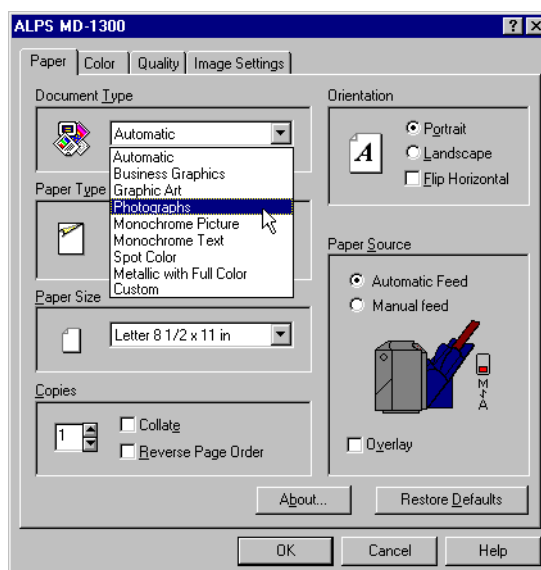


Note

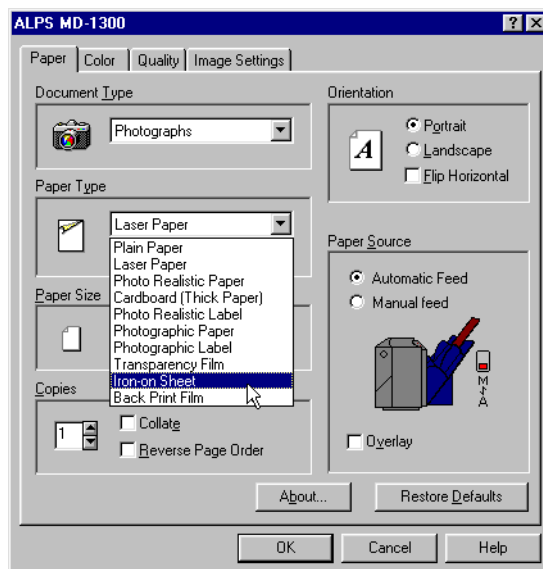
Please note that the procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another.

2. Select the appropriate document type under the Document Type setting.

Normally, use Photographs.

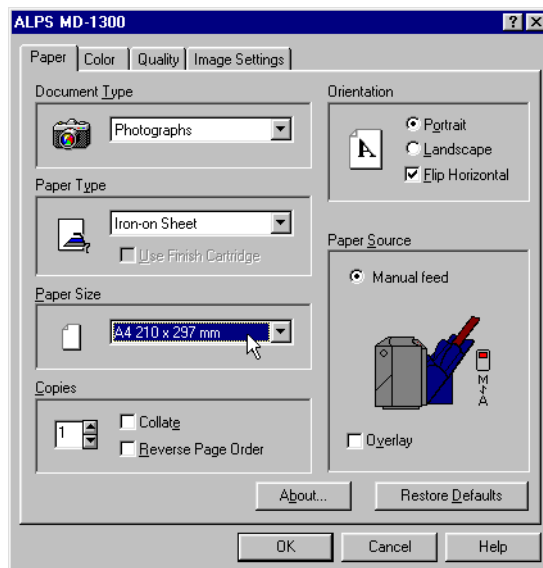


3. Set the Paper Type to Iron-on Sheet.



When Iron-on Sheet is selected under the Paper Type setting, the paper feed setting in the Paper tab is automatically changed to Manual Feed and the Flip Horizontal check box is checked.

4. Set the Paper Size to A4 210 x 297 mm, and change any other necessary settings such as orientation.



5. When you complete the setup, click on OK to close the dialog box.

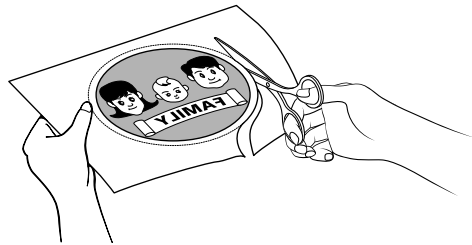
Step 4► Print

1. Click OK in the Print dialog box.
Printing will begin.

Step 5► Transfer the Iron-On to Cloth

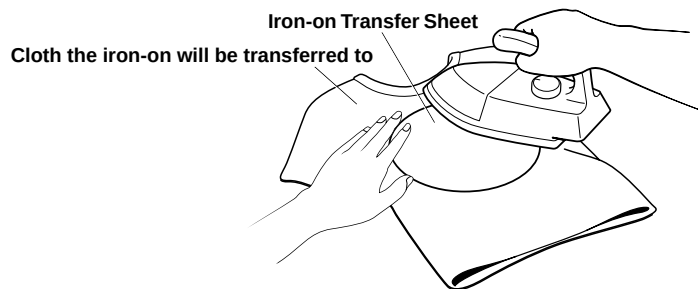
Use an iron to transfer the image to cloth after the printing on the iron-on transfer sheet is completed.

1. Cut around the printed image as close to the edges of the image as possible.



2. Place the printed side on the cloth and press down evenly with an iron (set to dry).

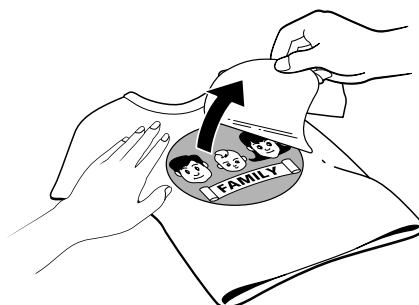
Using care not to let the iron-on transfer sheet shift, firmly apply pressure until the iron-on transfer is completely attached to the cloth.

**Note**

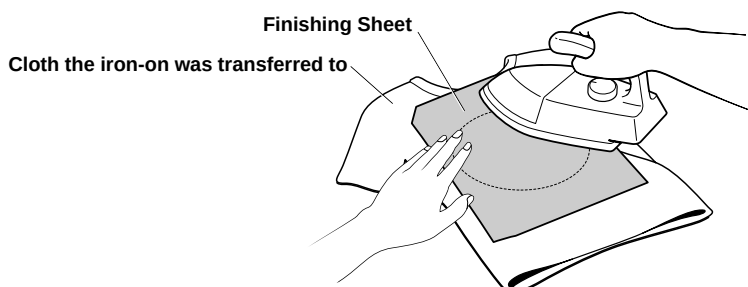
- Use the iron to remove wrinkles in the cloth before affixing the iron-on.
- Set the iron heat to 160°C/320°F (cotton). If the iron has outlet holes for steam, set the iron to Dry and avoid the holes, using a flat part of the iron.

3. Remove the iron-on transfer sheet after the cloth has cooled completely.

Starting at the corners, make sure the iron-on is firmly attached to the cloth, and then carefully peel off the rest of the sheet. If the sheet does not come off cleanly, replace it, and then iron it again.



4. Place the finishing sheet on the cloth with the silicon coated side face down (with the cut corner in the upper left corner). Apply the iron again to completely affix the iron-on to the cloth.



Note

The finishing sheet can be used many times. Do not discard it after using it.

5. Remove the finishing sheet after the cloth has cooled completely.



Caution

- The iron-on should withstand many washings but if it should begin to peel away again for some reason simply use the finishing sheet again to reattach it.
- Do not use dry cleaning. Also, the transferred image may peel off in the laundry if the cloth stretches or shrinks a lot, does not withstand heat well, or if the cloth has a nap. These kinds of cloth should be avoided.
- Note that once an iron-on has been applied it cannot be removed.
- Do not use bleach. Bleach may cause the colors in the printed image to run.
- Do not use the iron directly on the iron-on.
- Do not dry in a dryer.

**Note****What to do when the image does not print well**

When printing iron-on transfer sheets in one or more colors, the print results may appear rough if printed in high resolution mode (600 dpi). In such cases, click on Quality tab and select, Standard Dither or Coarse Dither under Halftone before printing. This will make the image appear rougher on the screen but should produce better print results.

Examples

Here are some examples of places and ways to use iron-on transfers. Iron-on transfers can be used almost any way you can think of.

T-shirts, sweatshirts, uniforms, undergarments, handkerchiefs, napkins, name tags, children's accessories (school bag, gym bag, lunch bag), pillow case, sheets, slippers, computer covers, embroidery patterns, etc.

Iron-on transfers can be used not only onto fabric items:

You can obtain a variety of effects using the iron-on transfers. You can transfer an image not only onto fabric items, such as a T-shirt or a handkerchief, but also onto other materials including cork and wood. Here are some tips for transferring an image onto hard materials such as cork and wood.

■ Material Selection

- 1) Choose an object with a smooth surface. The plates with a processed surface available at do-it-yourself stores are most appropriate.
- 2) If the surface is rough, sand it smooth with sandpaper before transferring an image.

■ Transfer Procedure

Transferring an image onto wood is basically the same as for fabric. Please note the following points.

- 1) Place a thin piece of cloth between the iron-on transfer sheet and the iron for easier ironing. While ironing, press harder than you would for transferring an image onto fabric.
- 2) Wait until the iron-on transfer sheet cools down completely before peeling it off. Peel it off slowly, starting with one of the corners.
- 3) When ironing the finishing sheet, insert a thin piece of cloth between the finishing sheet and the iron for a more uniform result.
- 4) Wait until the finishing sheet cools down completely before peeling it off.

Printing on Overhead Transparencies

This section describes how to print graphics and text on overhead transparencies. This function allows you to print full color images on the overhead transparencies to quickly produce materials for presentations and numerous other occasions.

Requirements

For printing on overhead transparencies, you will need the following.

- **Ink cartridges**

The following ink cartridges can be used.

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No. 106015-00)

Yellow ink cartridge (Part No. 106010-00)

Black ink cartridge (Part No. 106005-00)

White ink cartridge (Part No. 106050-00)

- **Media**

Use only the sheets shown below.

Overhead Projector Transparency Film (Letter / A4 size) (Part No. 106065-00 / 106065-00-EU)



Caution

When printing on overhead transparencies, use only the above listed ALPS transparency films. Using other films may cause damage to the printer.

Step 1 ► Prepare the Image to Be Printed

Create the text and graphics with an application, and lay them out within the printing area of an overhead transparency film.

Step 2► Set up the Transparency Separators.

Under certain conditions, electrostatic build-up may cause a printing transparency to “pick up” an already completed page. This could lead to paper jams. To prevent this, please set up the transparency separators as described below.

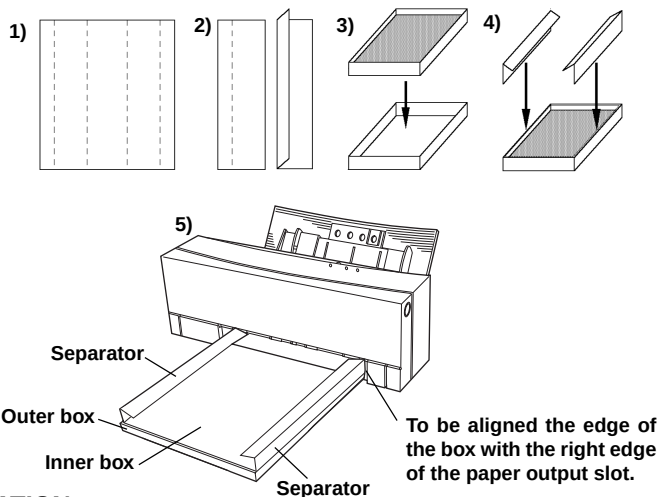
- 1) With a pair of scissors, cut apart the separators by following the dotted lines, as shown here. Then discard the middle portion, keeping the two outer sections with folding lines.
- 2) Now fold the two separators along the fold lines as shown in the illustration. The folded angle on the separators should be less than 90 degrees.
- 3) Take the inner box of the overhead projector transparency film and insert it into the cover of the box, as shown in the illustration.
- 4) Insert the separators into each side of the box, between the outer cover and inner box as shown.



Note

WHEN THE SEPARATORS ARE IN PLACE, MAKE SURE THE FOLDED ANGLE IS LESS THAN 90 DEGREES SO THE TRANSPARENCIES WILL FALL DOWN INTO THE OPEN BOX.

- 5) Place the box with installed separators in front of the printer, and align the right edge of the box with the right edge of the paper output slot on the printer.

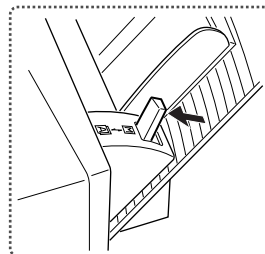


OPERATION

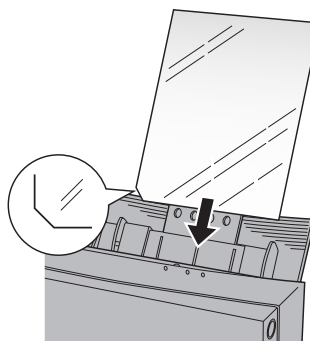
When transparencies are printing, they will ride on top of the separators, preventing them from “picking up” any completed transparencies lying below. When a transparency is completed, it will drop through the separators by the time the next sheet begins printing.

Step 3 ► Install the Ink Cartridges and Overhead Transparencies.

1. Install the ink cartridges in the ink cartridge holders.
 2. Set the paper feed switch to position "A".
-



3. Place the overhead transparencies into the sheet feeder.
Fan the transparencies to make sure they are separated.
-



4. Adjust the paper feed guide to the paper size.
-

**Note**

- Place the transparencies with the printing side up so that the cut corner is on the lower left-hand corner.
- No more than 30 sheets can be loaded into the sheet feeder at any one time.

Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. When the dialog box appears, click Properties.

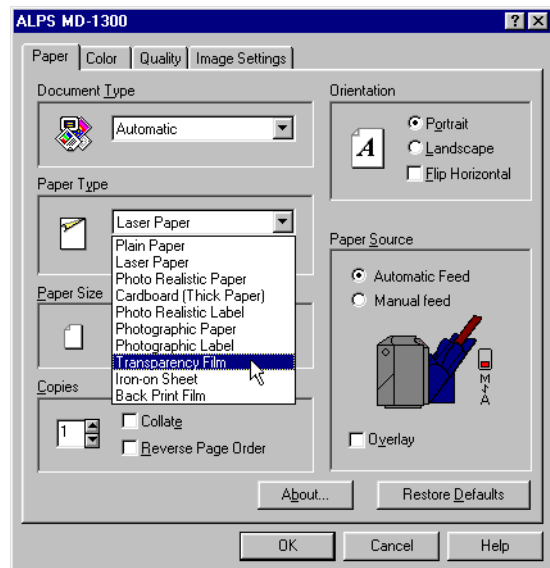
A dialog box appears, where you can set up your printer driver.



Note

Please note that the procedure for opening the dialog box to set up the printer driver may slightly differ from one application to another.

2. Set the Document Type according to the print data.
3. Set the Paper Type to Transparency Film.



4. Change the Color and other options as necessary.
5. When you complete all the setup, click OK to close the dialog box.

Step 5 ► Print

1. Click OK in the Print dialog box.
Printing will start.

Undercoating with a White Ink Cartridge

A white ink cartridge can be used not only to print white characters on colored paper, but also for undercoating. Undercoating is a function for printing a white undercoat on colored paper so that the paper can later be subjected to full color printing. This is done because if full color printing is applied to colored paper, the hue of the printing may be changed. However, a white undercoat enables all colors to be clearly reproduced regardless of paper color.



Note

White may not be clearly reproduced in some cases, depending on the depth of color of the paper. Execute a test print to evaluate this possibility.

Requirements

For undercoating, you will need the following.

- **Ink cartridges**

White ink cartridge (Part No. 106050-00)

- **Media**

As in full color printing, plain or cardboard can be used for printing.

**Note**

Iron-on transfer sheets, back print films, and overhead projector transparencies cannot be used for undercoating.

Step 1 ► Create Data for Full Color Printing

Use any application to create the image or document you want to print in full color.

**Note**

White portions of data (R = G = B = 100%) are not undercoated and therefore will be the color of the paper used.

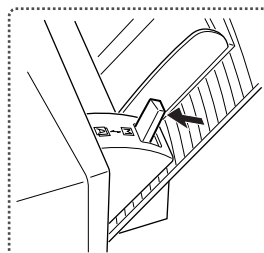
Step 2 ► Install the White Ink Cartridge

Install the white ink cartridge in any of the ink cartridge holders.

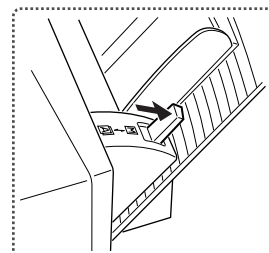
Step 3 ► Load Paper in Your Printer

The method used for loading paper depends on the paper type. Use manual feed mode for thick paper and greeting cards. For plain paper, laser paper and High Grade Paper, you may also use automatic feed mode to print a number of sheets at one time. For details, see Chapter 1, "Loading Paper".

1. For manual feed mode, set the paper feed switch to position "M"; for automatic feed mode, set it to "A".

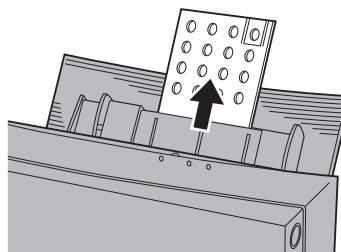


Paper feed switch "A"

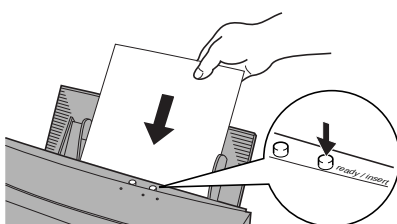


Paper feed switch "M"

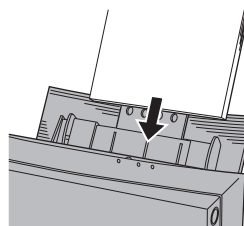
2. For Letter / A4 paper, fully extend the paper support.



3. Adjust the paper feed guide to the width of the paper.
4. For manual feeding, load one sheet of paper into the sheet feeder and press the *ready / insert* button. For automatic feeding, load all of the sheets together.



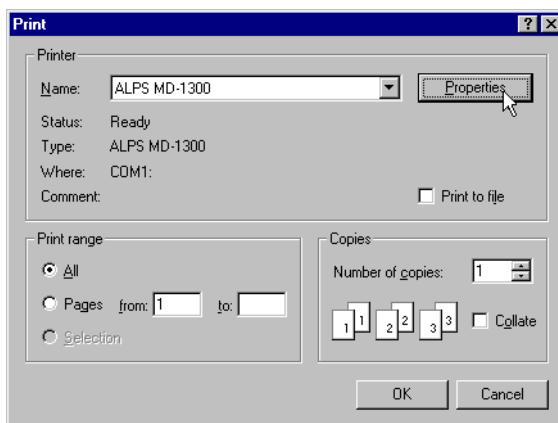
Manual feeding



Automatic feeding

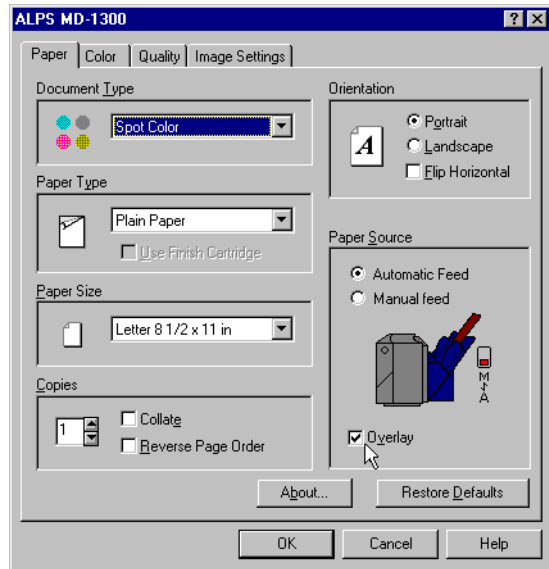
Step 4 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. When the dialog box appears, click Properties in the Print window.



2. Make sure that the Paper tab is being displayed.

3. Select Spot Color in the Document Type setting.

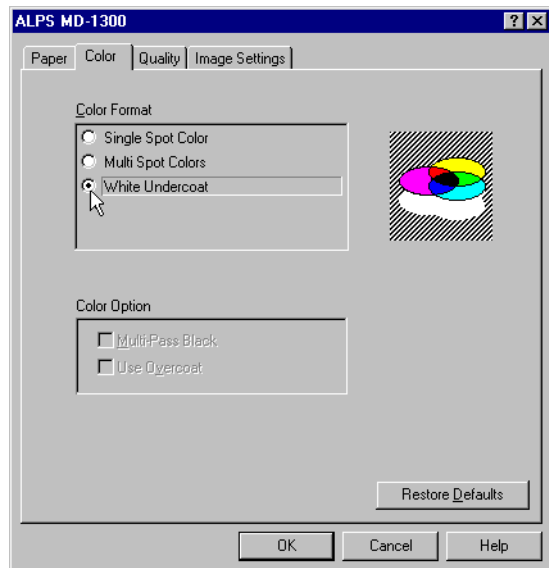


4. Check the Overlay check-box in the Paper Source setting.

5. Change any other necessary settings.

6. Click the Color tab, and then click White Undercoat in the Color setting.

7. Once all the settings have been finished, click the OK button.



Step 5 ► Print

Click OK in the Print dialog box to start printing. If printing is executed in overlay mode, paper will not be ejected even when printing is finished.



Note

If Overlay mode is not being used, manually load paper into the sheet feeder and print in full color after executing the undercoat printing. If consecutive printing is carried out using automatic feeding, the paper may not feed in correctly.

Step 6 ► Print on the Undercoat

Once the undercoat printing has been finished, replace the ink cartridges, and start full color printing.

Photo Realistic Finishing (Glossy Finish) in Overlay Mode

After full color (CMYK) printing, Photo Realistic Finishing (glossy finish) can be added in Overlay mode. Photo Realistic Finishing provides a glossy finish, as in photographs.

Requirements

- **Ink cartridges**

The following ink cartridges can be used.

Cyan ink cartridge (Part No. 106020-00)

Magenta ink cartridge (Part No. 106015-00)

Yellow ink cartridge (Part No. 106010-00)

Black ink cartridge (Part No. 106005-00)

Finish cartridge (Part No. 106054-00)

- **Media**

High Grade Paper (Letter / A4 size) (Part No. 106085-00 / 106085-00-EU)

Greeting Card Set (Part No. 106090-00) (uncoated side)

**Note**

A good finish cannot be obtained by applying Photo Realistic Finishing to plain paper that lacks a smooth surface.

Step 1 ► Create Data

Use any application to create the image or document you want to print.

Step 2 ► Install Ink Cartridges

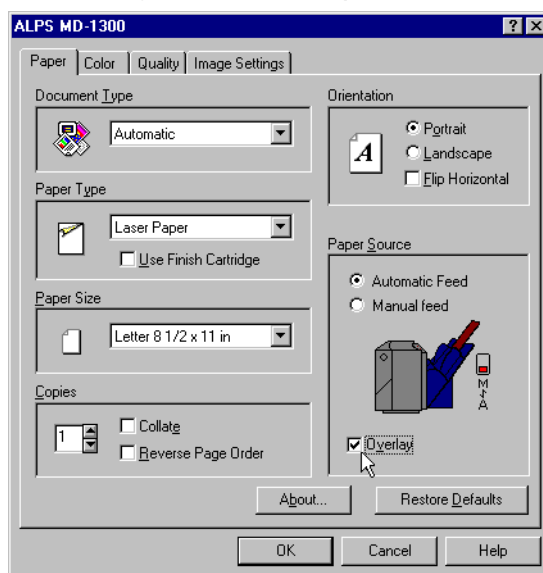
Install one cyan, one magenta, one yellow, and one black ink cartridge into the ink cartridge holders.

Step 3 ► Print Full Color Printing

Activate Overlay mode to provide full color printing. For the other settings, see the section entitled "Printing (Color)" in Chapter 1.

**Note**

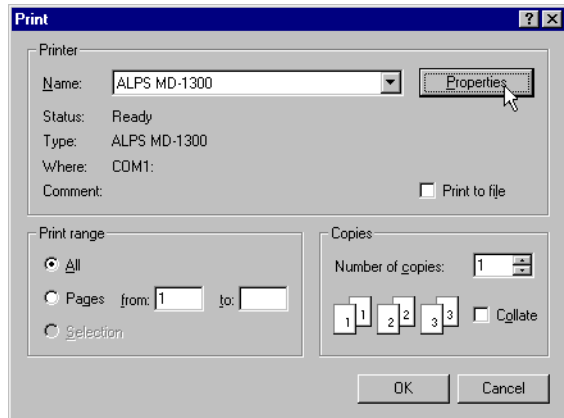
Check the Overlay check-box in the Paper tab.

**Step 4 ► Change the Ink Cartridges**

Paper will not be ejected even when printing is finished. At this point, remove any of the ink cartridges installed in the printer and replace it with a finish cartridge.

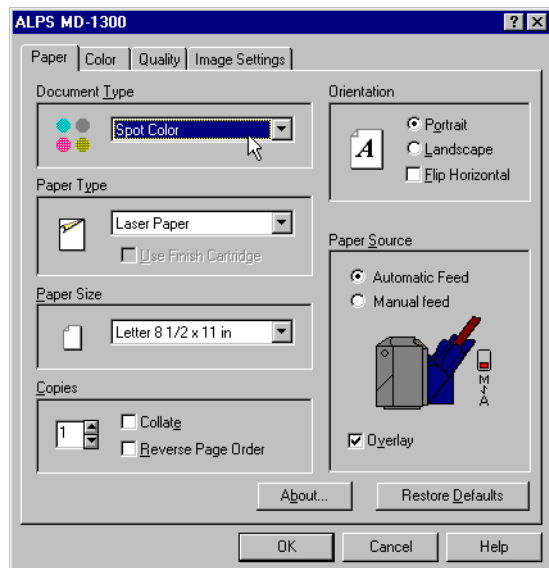
Step 5 ► Set Up the Printer Driver for Printing

1. Select Print from the File menu of your application. When the dialog box appears, click Properties in the Print window.

**Note**

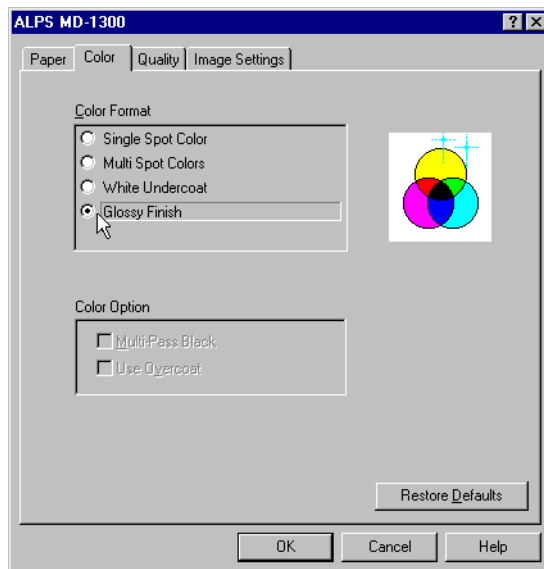
Use the data that has been used for full color printing.

2. Make sure that the Paper tab is being displayed.
3. Select Spot Color from the Document Type setting.



4. Click the Color tab, and then click Glossy Finish in the Color Format setting.

5. When you complete the setup, click OK to close the dialog box.



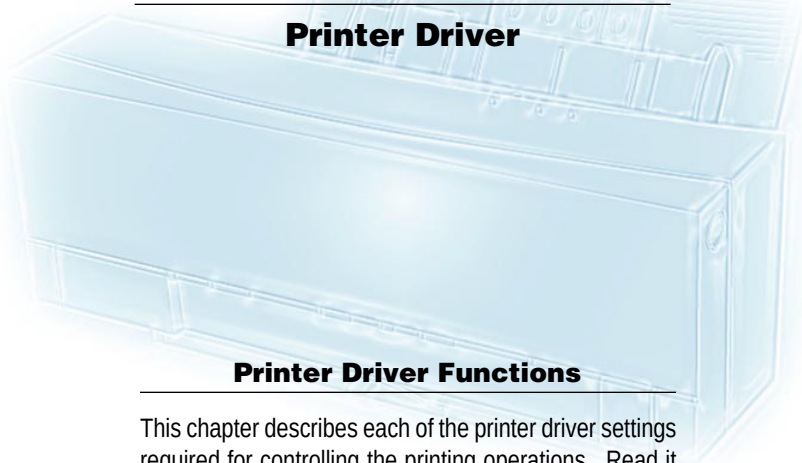
Step 6 ► Print

Click OK in the Print dialog box to start printing. When printing is finished, the paper is ejected.

MD-1300

Chapter 3

Printer Driver



Printer Driver Functions

This chapter describes each of the printer driver settings required for controlling the printing operations. Read it to learn the specific setup details for different printing modes.

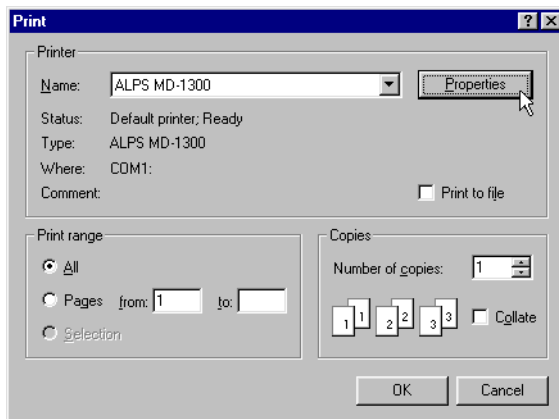
Photographic-Quality Color Printer

Printer Driver Setup Dialog Box

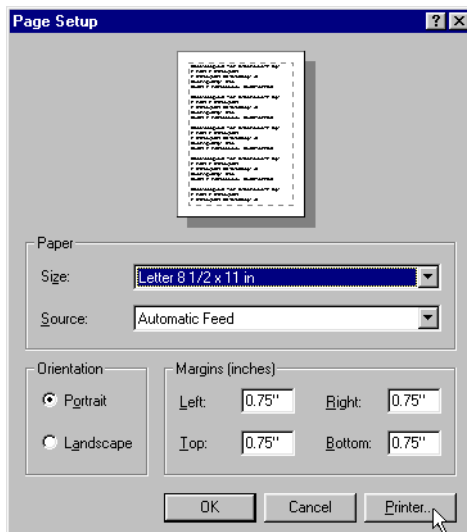
How to Open the Printer Driver Setup Dialog Box

You may open the printer driver setup dialog box in one of the following ways.

- Select Print from the File menu, and then click Properties in the Print dialog box.



- Select Page Setup from the File menu. Click Printer in the Page Setup dialog box, and then click Properties in the displayed dialog box.



- If you are using a Windows 3.1 application, open the Printer Setup dialog box, and then click the Options button.

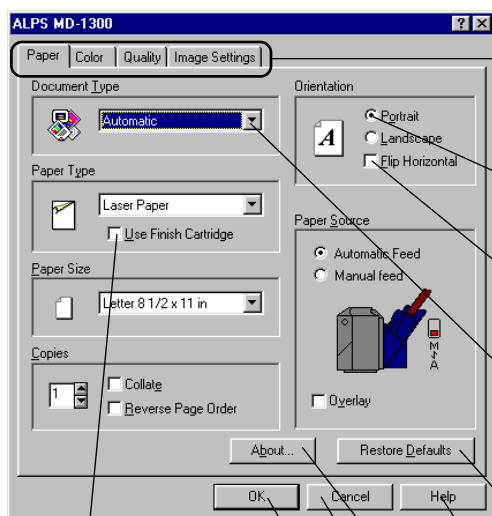


Note

To set up the printer driver in the Printer Setup and other dialog boxes, you must first select ALPS MD-1300 as the default printer. If you have not done this, do so by referring to Chapter 1: Installing the Printer Driver.

Name and Functions of Each Item of the MD-1300 Dialog Box

The name and functions of each item of the MD-1300 dialog box are shown below.



Tabs

You get access to different tab items by clicking one of the tabs. Click on a tab to display the selected tab items.

Radio buttons

You may select one of the displayed options by clicking on a button.

Check boxes

When you check a box, the option is turned on. Unchecking a box turns off the option.

Drop down list

You may select one of the displayed options. Click the button to display the available options, and then click a desired item.

Default button

Clicking on this button selects the original factory settings.

Help button

Clicking on this button displays help information for the ALPS MD-1300 dialog box.

About button

Clicking on this button displays the driver information.

Cancel button

Clicking on this button discards any changes and closes the dialog box.

OK button

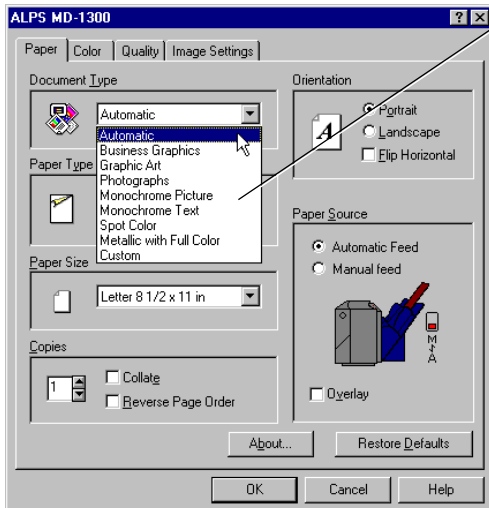
Clicking on this button saves any changes and closes the dialog box. Click on it when you complete all the settings in all the tabs.

When Laser Paper is selected in the Paper Type setting, you may check this box to perform printing using CMY + Finish.

Settings in Each Tab

Paper Tab

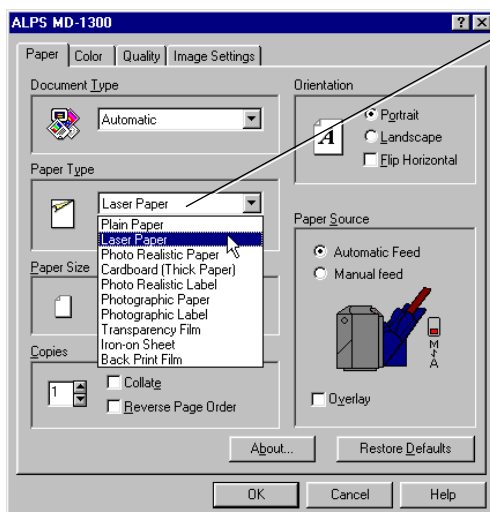
This tab allows you to select a document type, paper type, paper size, and a few other settings.



Document Type

Click the down arrow, and select the desired document type from the displayed settings. The available options are as follows:

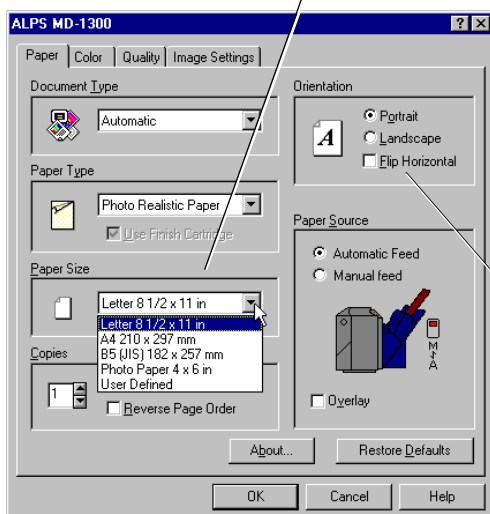
- **Automatic**
Use this option to have the MD-1300 driver automatically select between monochrome and full color printing.
- **Business Graphics**
Use this option when printing a business document that includes some graphics. The colors often used in business documents, such as red and blue, will be printed more vividly.
- **Graphic Art**
Use this option when the document contains text and photographs or graphics.
- **Photographs**
Use this option when printing color photographs. Choosing this option automatically turns on the Multi-Pass Black option in the Color Format setting, so that the black portions of color photographs are blended more naturally.
- **Monochrome Picture**
Use this option when printing a monochrome graphic image or printing a color image in monochrome.
- **Monochrome Text**
In contrast to Monochrome Picture mode, this option produces images without halftoning. All shades of gray will be printed as either black or white.
- **Spot Color**
Use this option for metallic color printing, white printing, and photo realistic finishing.
- **Metallic with Full Color**
Use this option to print metallic plus full color pages without having to change ink cartridges. Multicolor and black ink cartridges are required. If you use three or more metallic colors, you will need to change the metallic color cartridges during the print job, according to the displayed messages.
- **Custom**
Use this option when you want to select a printing medium independent of the document type. Normally, the Document Type setting restricts the Paper Type options.



Paper Type

Click the down arrow, and select a paper type from the displayed options. The available Paper Type options depend on the Document Type setting. The available options are as follows.

- **Plain Paper**
Select this for printing on plain paper.
- **Laser Paper**
Select this for printing on computer paper with a smooth surface or Alps High Grade Paper.
- **Photo Realistic Paper**
Select this for enhanced 1200 dpi printing on Photo Realistic Paper.
- **Cardboard (Thick Paper)**
Select this for printing on cardboard or thick paper.
- **Photo Realistic Label**
These labels are used exclusively for full color printing at 1,200 dpi on a sheet containing 16 labels (Part No. 105108-00).
- **Photographic Paper**
Select this for printing on Photographic-Quality Paper (Letter / A4) or Photographic-Quality Paper (4" x 6" / 100 x 148 mm).
- **Photographic Label**
Select this for printing on Photographic-Quality Labels.
- **Transparency Film**
Select this for printing on overhead projector transparencies.
- **Iron-on Sheet**
Select this for printing on iron-on transfer sheets.
- **Back Print Film**
Select this for printing on back print film.



Paper Size

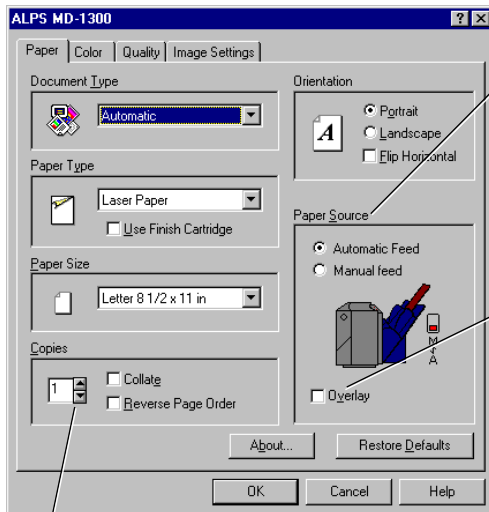
Click the down arrow, and select a paper size from the displayed options. The available options are as follows:

- **Letter 8 1/2 x 11 in**
- **A4 210 x 297 mm**
- **B5 (JIS) 182 x 257 mm**
- **Photo Paper 4 x 6 in**
- **Photo Label 100 x 148 mm**
- **Photo Label 100 x 164 mm**
- **User Defined**
When you select this option, a box appears to allow you to specify the paper width and length.

Orientation

This setting sets the paper orientation.

- **Portrait/Landscape**
Click one of the radio buttons to set the paper orientation to either Portrait or Landscape.
- **Flip Horizontal**
Turning on this option prints an image flipped horizontally. When you select Iron-on Sheet or Back Print Film in the Paper Type setting, this check box is automatically checked.



Paper Source

This setting allows you to set the paper feed mode. The current paper feed mode is displayed in the box.

Click one of the radio buttons to select a paper feed mode appropriate for the paper type. The available modes are Automatic Feed and Manual Feed.

Set the paper feed switch of the printer as displayed on the screen.

Overlay

This option allows two consecutive pages of a document to be printed on the same sheet. Use this option when printing metallic color data, and then full color data. This option is not available when Metallic with Full Color has been selected in the Document Type setting.

Copies

Input the number of copies to be printed by typing the number in the edit box.

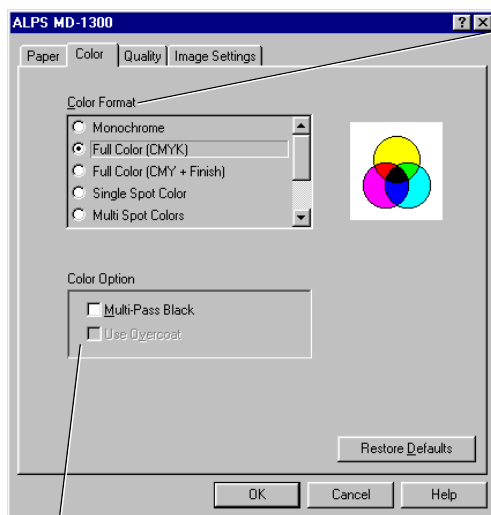
Select different printing options by clicking on the check boxes.

- **Collate**
Print multiple copies in collated order.
- **Reverse Page Order**
Print in reverse order beginning with the last page.

Color Tab

Set the color setting in this tab. The available Color Format options depend on the Document Types and Paper Type settings. Under some conditions only one Color Format option will be available.

Select one of the following Color Format options by clicking on the appropriate radio button.



Color Option

- **Multi-Pass Black**
When this box is checked, black is created using all four inks (cyan, magenta, yellow, and black), so that the black portions of a color photograph or other graphic are blended more naturally. When Photographs or Metallic with Full Color has been selected in the Document Type setting, this option is automatically turned on.
- **Use Overcoat**
If you select Photographic Paper from the Paper Type setting, the overcoat finishing will be automatically provided. It is recommended to print with the overcoat. However, if printing with the overcoat is not desired, click the Color tab, and then uncheck the Use Overcoat check-box in the Option setting.

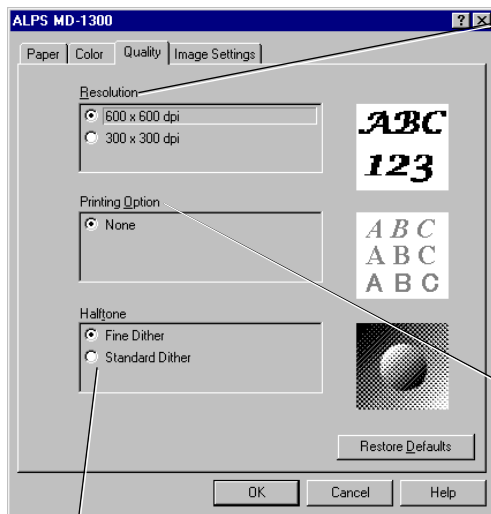
Color Format

- **Monochrome**
Select this to print using only black ink. Use this for monochrome printing.
- **Full Color (CMYK)**
Select this for full color printing using cyan, magenta, yellow, and black ink cartridges. This is the normal setting for color printing.
- **Full Color (CMY+Finish)**
When Photo Realistic Paper has been selected in the Paper Type setting, only this option will be available in the Color Format setting. When Laser Paper has been selected, this option will also not be available. Use this for full color printing using cyan, magenta, and yellow ink cartridges, with Finish cartridge.
- **Single Spot Color**
Select this to use a single spot color, such as a metallic color, white ink, or Finish cartridge.
- **Multi Spot Colors**
Select this for printing with up to five spot color ink cartridges (four metallic color and one white ink cartridges) plus a black ink cartridge.
- **Metallic with Full Color**
Select this for printing full color data plus a spot color such as a metallic color, without using the overlay option. A multicolor ink cartridge is required.
- **White Undercoat**
Select this to apply undercoating to the paper according to the provided data. This function is used in Overlay mode.
- **Glossy Finish**
Applies Photo Realistic Finishing to the paper according to the provided data. This function is used in Overlay mode.

Quality Tab

Set the print quality options in this tab. The available Quality options depend on the Document Type and Paper Type settings. Under some conditions only one option will be available.

Select from the following settings by clicking on the appropriate radio buttons.



Halftone

The setting here controls how the halftone of an image is processed and printed. The finer the halftone dither, the more smoothly the tones and gradations will be rendered. With rougher paper, however, a coarser dither may produce a better printed image.

- **No Halftoning**
Halftoning is not used. The image is printed in black and white only. Areas over 50% gray are printed as solid black.
- **Standard dither**
A regular level gradation is provided during monochrome printing. Gradation suitable for paper with a coarse surface is provided during full color printing.
- **Fine dither**
Fine gradation for full color printing is provided.
- **Super fine dither**
This can be selected only for full color Photo Realistic Finishing (glossy finish) at 1,200 dpi.

Resolution

Set the printing resolution in this setting. The larger the numbers, the higher the resolution, and the longer it takes to print.

- **1200 x 600 dpi**
Full color 1200 dpi printing is available only when Photo Realistic Paper or Laser Paper is selected. When printing Monochrome pictures and text in 1200 x 600 dpi, Laser Paper or Plain Paper should be selected in the Paper Type setting.
- **600 x 600 dpi**
Can be used when printing on smooth paper, etc.
- **300 x 300 dpi**
Good for fairly rough surfaces of plain paper.

Printing Option

Set the printing density and speed in this box.

- **None**
This is the default option.
- **Enhanced Monochrome**
Use this mode to print the same data twice, so that a higher density black can be printed on plain paper. However, it doubles the ink cartridge consumption and printing time.
- **Monochrome Faster**
Select this for faster printing. The printer will not perform the curl correction before ejecting the paper.

Image Settings Tab

Set the brightness, contrast, and color balance of the printed image in this tab.



This button toggles between Color Match and Color Balance.

Image

Adjust the brightness and contrast of the image by moving the sliders.

Increasing the brightness makes the entire image brighter. Increasing the contrast intensifies the differences between light and dark areas.

Color Match

This setting allows the printer to adjust colors according to the data type, for higher color printing quality. The available options are as follows:

- **None**
No color matching.
- **Use Driver's Matching**
Color matching is performed automatically by the printer driver.
- **Match for Business Graphics**
Colors are adjusted for business documents that contain some graphics. When Business Graphics is selected in the Document Types setting, this option is automatically selected.
- **Match for Photographs**
Colors are adjusted for photographs or illustrations. When Photographs is selected in the Document Types setting, this option is automatically selected.
- **Match for Graphic Art**
Colors are adjusted for computer graphics. When Graphic Art is selected in the Document Type setting, this option is automatically selected.



This button toggles between Color Match and Color Balance.

Color Balance

This setting allows you to adjust the color balance of the printed image. Click on the Color Balance button to display the color balance setup sliders. Move the sliders to change the color balance settings.

- **Saturation**

Adjusts the color intensity of the printed image. Moving the slider to the right intensifies the colors, and makes the printed colors more vivid. Moving it to the left reduces the color intensity, and makes the printed colors more dull.

- **Red Strength**

Adjusts the brightness of red in the printed image. Moving the slider to the right intensifies red, while moving it to the left reduces the intensity of red.

- **Green Strength**

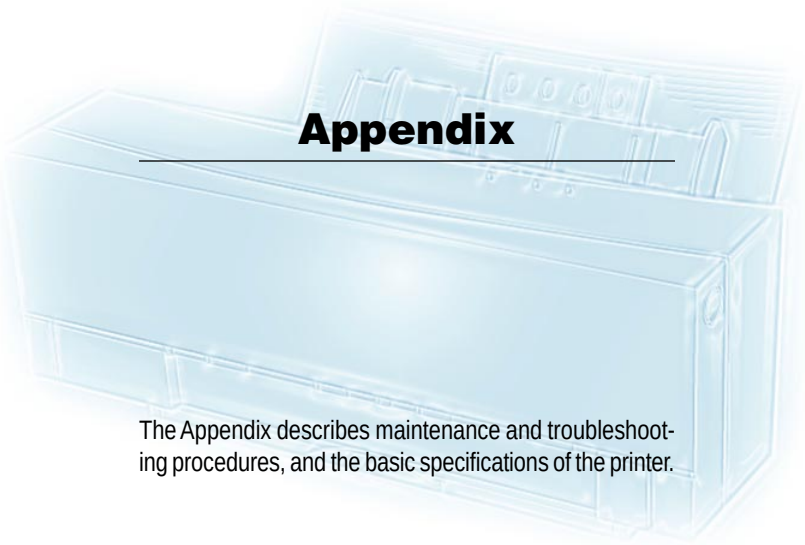
Adjusts the brightness of green in the printed image. Moving the slider to the right intensifies green, while moving it to the left reduces the intensity of green.

- **Blue Strength**

Adjusts the brightness of blue in the printed image. Moving the slider to the right intensifies blue, while moving it to the left reduces the intensity of blue.

MD-1300

Appendix



The Appendix describes maintenance and troubleshooting procedures, and the basic specifications of the printer.

Photographic-Quality Color Printer

Cleaning the Printer

We recommend that this printer be cleaned periodically to ensure satisfactory long term operation.

Cleaning the Main Unit

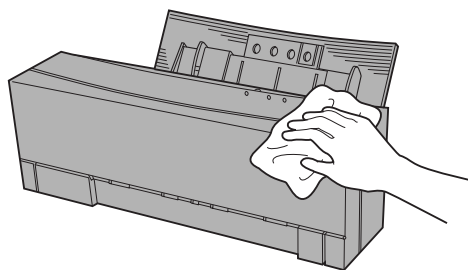
Follow the cleaning steps described below.

**Caution**

Make sure to unplug the printer before cleaning it.

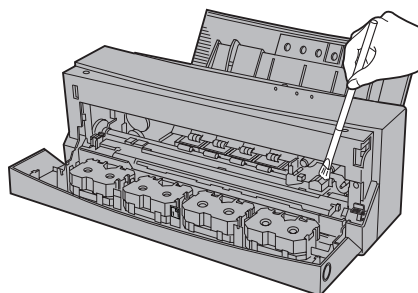
1. Clean the outside of the printer.

Use a soft cloth to wipe the outside of the printer to avoid dust and dirt build-up.



2. Clean the inside of the printer.

Use a soft brush to brush away dirt and dust.

**Caution**

Brush very gently around electrical components, and be careful not to leave any brush hairs on or near these components.

Cleaning the Print Head

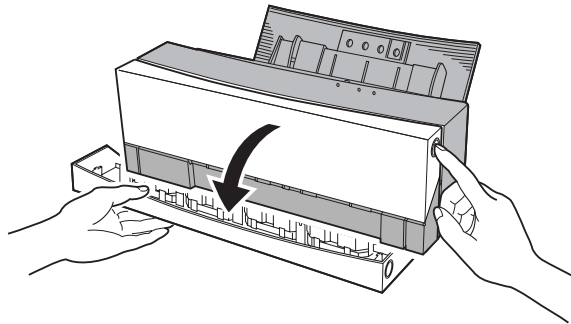
Follow the steps below, using isopropyl alcohol and a cotton swab.



Caution

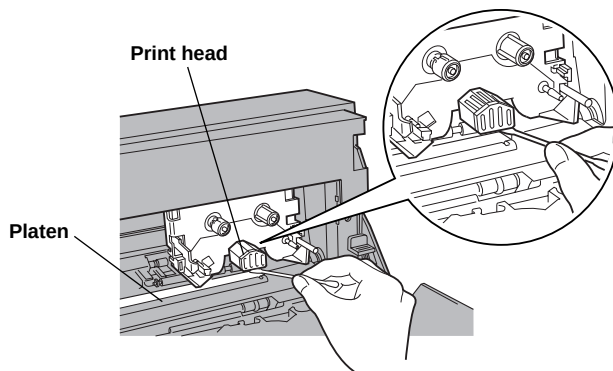
- Make sure to unplug the printer before cleaning it.
- Do not use benzene, thinner, or other volatile materials as they may damage the printer components.
- Do not get the inside of the printer wet.

1. Push the front cover release button and gently lower the front cover.



2. Wipe the print head with a cotton swab dipped in isopropyl alcohol.

The print head may not come clean in one wipe so repeat several times.



Caution

Avoid getting alcohol on the platen.
Wait until the alcohol dries before printing.

Cleaning the Platen

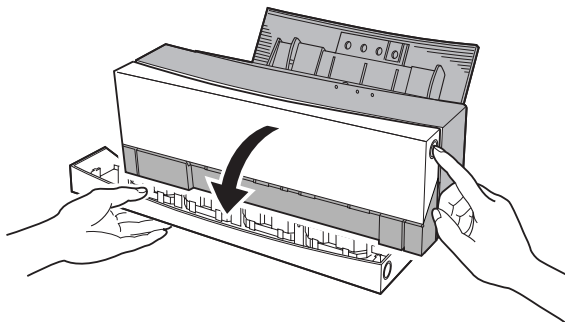
Use cellophane tape to clean the platen as described below.



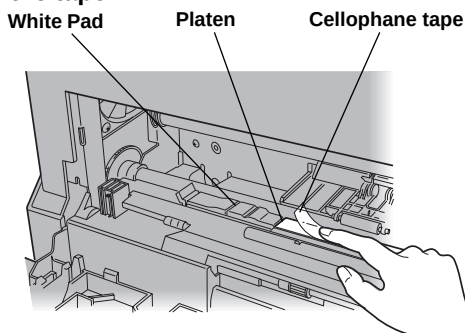
Caution

Make sure to unplug the printer cleaning it.

1. Press the front cover release button and gently lower the front cover.



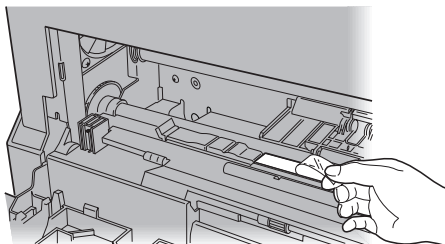
2. Gently apply the tape to dirty spots on the platen and rub your finger over the tape.



Caution

Do not touch or remove the white pad on the left side of the platen. Doing so may damage the printer.

3. Slowly peel off the tape.
Repeat as necessary to remove dirt from the platen.

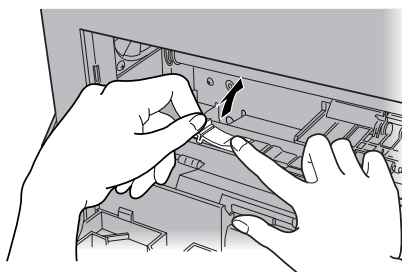


Exchanging Cleaning Pads (for Photographic-Quality Color Printing)

Make sure to replace the orange-colored cleaning pad to maintain good print quality. Replace the cleaning pad after printing every 20 sheets of Photographic-Quality Paper or Photographic-Quality Labels. A cleaning pad is enclosed in each new package of Photographic-Quality Paper and Photographic-Quality Labels.

1. How to remove the cleaning pad

Open the front cover, and pull on the left end of the cleaning pad while holding the right side of the pad, as shown in the figure.

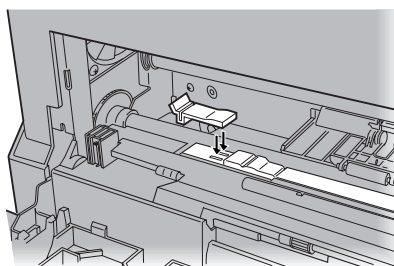


Important

The white pad (next to the cleaning pad) is not removable.

2. How to install a cleaning pad

Mount the pad on the platen so that each of the two tips of the pad go into the holes on the platen (see the figure below). Push the pad onto the platen to make sure the pad sits flat.



Important

Always keep a cleaning pad in the printer. Failure to do so can cause the printer to malfunction.

ready / insert Button Functions

The *ready / insert* button is used for a number of functions which differ depending on the printer state.

The functions during normal printing are described below.

- **Paper feed and eject**

Paper feed

Paper is fed by setting the paper feed switch to position "M" while no data is being received from the computer (i.e., *ready* light is on), loading one sheet of paper into the sheet feeder, and then pressing the *ready/insert* button.

Paper eject

If paper is already present and no data is being received (*ready* light is on), pressing the *ready / insert* button causes the paper to be ejected.

- **Canceling an alarm**

After the cause of the alarm has been removed, an alarm for anything other than a hardware or mechanism error can be cleared by pressing the *ready / insert* button.

- **Forced printing and clearing data**

When the data transfer from the computer stops for more than a certain period of time (about 30 seconds) and the *ready* light is blinking quickly, press the *ready / insert* button to force the printer to print the data it has received so far.

Indicator Lights Summary

Normal Printing Mode

Indicator light status

Light	Light status	Printer status
power		Ready for operation
		Printing sample page
		Not ready for operation
ready		Select mode (ready to print)
		Deselect mode (not ready to print)
		Receiving/processing data
error		Printer error detected
		Normal

 = on  = fast blinking  = slow blinking  = off

Alarm status by indicator lights

Status	Light Status			Description
	power	ready	error	
Hardware error				An electrical circuit error has occurred
Nonvolatile error				The contents of the MD-1300's nonvolatile memory have been lost
Out of paper error				The printer is out of paper (detected during paper feed)
Paper jam error				A paper jam was detected
Ribbon end detected error				The ribbon in the ink cartridge has been used up
Cartridge change error				An error was detected during an ink cartridge exchange, or there are four ink cartridges installed in the holders plus one already on the carriage
Mechanism error				An error was detected in the printer mechanism
Front cover open error				The front cover is open
Necessary ribbon not installed				The necessary ink cartridge is not installed or its ribbon has been used up. Forced printing is still possible

 = on  = fast blinking  = off

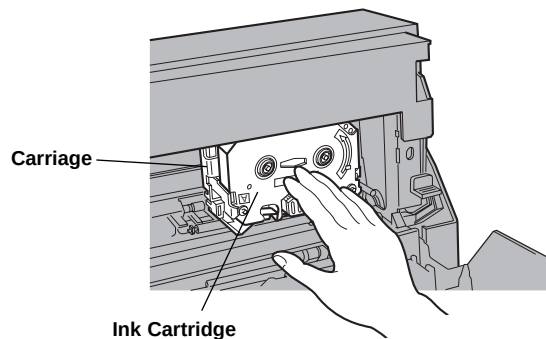
Troubleshooting

What to Do If the Power Is Shut Off While Printing (due to power failure, disconnected power cord, etc.)

With the front cover closed, turn the printer on. The printer will initialize and eject the partially printed page.

When the front cover has been opened before the printer is turned back on, perform the following steps.

1. **If a cartridge is on the carriage, press on the middle of the cartridge, as shown in the diagram, to ensure it is properly seated. Also, check that the cartridges in the holders are correctly installed. (See “Installing Ink Cartridges” in Chapter 1.**



2. **Close the front cover.**
The printer will now be able to resume functioning.

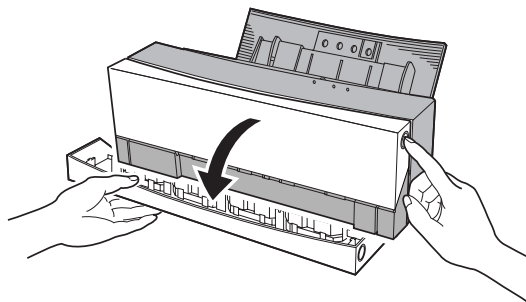
What to Do When a Cartridge Change Error Occurs

When there is a cartridge change error, the following combination of indicator lights appears and the error message dialog box appears on the screen.

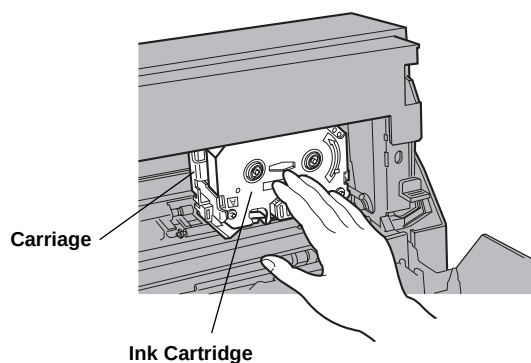
power	ready	error
		

 = on  = off  = fast blinking

1. First, press the *power* button to shut off the power.
2. Open the front cover.



3. If the ink cartridge is on the carriage, press on the middle of the ink cartridge, as shown in the diagram, to ensure that it is properly seated. Also, check to see that the ink cartridges in the ink cartridge holders are correctly installed. (See “Installing Ink Cartridges” in Chapter 1.)

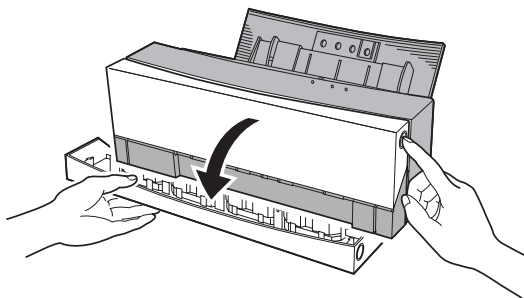


4. Close the front cover.
5. Press the *power* button to turn on the power.

Clearing Paper Jams

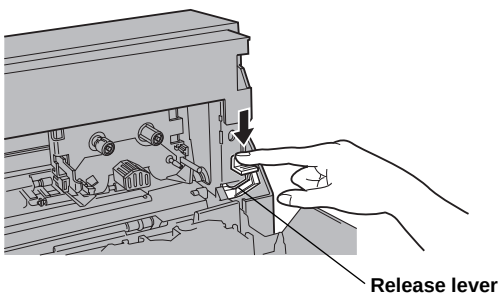
Follow these steps to clear a paper jam.

1. First, press the *power* button to shut off the power.
2. Press the front cover release button and gently open the front cover.



3. Press the release lever and gently pull out the jammed paper.

Paper jams can be caused by a dirty platen. Clean the platen following the directions in the “Cleaning the Platen” section of this Appendix.



4. Close the front cover.
5. Press the *power* button to turn on the power.

Troubleshooting

When problems occur during operation of the printer, please check the following troubleshooting tips before concluding that the printer is broken.

Power does not come on

Is the power cord disconnected?

- Make sure the power cord is plugged into an outlet as well as connected to the printer. After checking the power cord, push the *power* button to turn on the printer.

Is the printer plugged into an extension block or power strip where the computer and other equipment is plugged in?

- After turning on the extension block or power strip, press the *power* button on the printer.

Computer and printer cable may or may not support bi-directional communication

Are you using the proper printer cable?

- To fully take advantage of the features of your MD-1300 printer, you will need a bi-directional printer port and a bi-directional printer cable.
With AT compatible computers most typical cables will work.
It is possible to use a one-way interface with the printer if the spooler is set for one-way interfacing.

Does your computer have a bi-directional port? Is the cable bi-directional?

- Windows 95 Plug & Play installation and bi-directional interfacing with the printer are only possible if your computer supports bi-directional parallel ports and you are using a bi-directional cable.

Is your computer a DOS machine?

- All DOS machines (AT compatibles) can use the bi-directional communication used with this printer.

What are the limitations of using one-way communication with this printer?

- 1) Printer errors cannot be detected by the printer driver.
- 2) The printer driver cannot tell which ink cartridge is in which holder.
- 3) To store all the print output, an enormous amount of spool data (held in a temporary file for printing) is generated during color multi-page printing. As a result, the number of sheets of paper that can be continuously printed will be limited if there is insufficient free space on the hard disk.

Printer does not print or stops while printing

Is the printer turned on?

- Before printing make sure the printer is turned on.

Is the front cover closed correctly?

- Make sure that the front cover is closed correctly.

Is the *ready* light off?

- Press the *ready / insert* button and make sure that the *ready* light comes on.

Is the interface cable correctly connected?

- After connecting the cable, make sure nothing is putting pressure on the cable and tighten the fastening screws and clamps to secure the cable.

Is there a paper jam?

- Remove the paper. If the paper is caught in the rollers, open the front cover, push down on the release lever, and gently remove the paper. Make sure there are no pieces of the paper left in the printer.

Are the settings in the application correct?

- Recheck the printer settings in the application.

Is the printer driver correctly installed?

- Install the MD-1300 printer driver from the CD-ROM.

Is the cable disconnected?

- When one of the followings occurs, it is possible that the cable is broken or disconnected.
 - 1) The gauge in Print dialog box does not progress.
 - 2) The "Printer Paper Tray is empty! Load Paper" message appears repeatedly.
 Replace the cable with a new one.

Are you using a printer selection switch or a printer buffer?

- With bi-directional interfaces, operation is sometimes unreliable when using printer switching boxes or printer buffers. If you are using a printer selection switching box or printer buffer, use one-way communication.

Is your cable too long?

- Do not use a cable that is longer than you need. The signals become more unstable as the cable gets longer.

Are you using the wrong ink cartridges?

- Use the correct ink cartridges. Do not use ink cartridges from other manufacturers.

Are the ink cartridges correctly installed?

- Insert the ink cartridges in the holders with the ALPS logo (B side) face up.



Is the ribbon in one of the ink cartridges all used up?

- When the ribbon in an ink cartridge has been spent, black and silver stripes will be visible on the ribbon. Install a new ink cartridge. After replacing the ink cartridge, printing will continue from where it left off.

Do you have enough hard drive space?

- The MD-1300 requires work space on the hard disk when it prints. Keep enough space open on the disk for the printer to operate. (After printing the work space is released.)

Does the hard disk have areas where reading or writing are unreliable?

- If there are areas on the hard disk where reading or writing are unreliable, sometimes a printing error will occur and printing will stop. Periodically use a utility like SCANDISK that comes with MS-DOS 6.0 (or later) or Windows 95 to prevent these problems.

Printing is light, distorted, or has gaps

Has one of ribbons separated from the head?

- Stop the printing and reinstall all the ink cartridges. Take up any slack in the ribbons. If a particular ink cartridge repeatedly causes problems try a different ink cartridge.

Is the head dirty?

- Clean the head following the directions in this guide for cleaning the printer and head. The platen often gets dirty at the same time as the head, so it is recommended to clean the platen after cleaning the head.

Is the platen dirty?

- Clean the platen following the directions in this guide for cleaning the printer and platen. If anything is stuck to the platen, remove it, being careful not to damage the platen. The platen often gets dirty at the same time as the head so it is recommended to clean the platen as well as the head. If cleaning the head and the platen does not work, contact the store where you purchased the printer.

Are you using the correct ink cartridge for the chosen printing medium?

- Use only Alps ink cartridges for the MD-1300 printer. When printing in color on the glossy side of a greeting card, use only metallic ink cartridges. When printing on transparencies, use only Alps Overhead Projector Transparency Film (Letter/A4) (part number 106065-00 / 106065-00-EU).

Are you printing in 600 dpi on a rough or special surface (such as overhead transparency film, iron-on transfer sheets, or back print film)?

- Rough or specially treated surfaces may not allow Micro Dry™ ink to adhere well in high resolution printing modes, resulting in gaps or distortions. In such a case, use halftone setting appropriate for the image.

Are you printing images with many sudden color variations or very bright colors?

- In these situations, the overlap of different colors of ink can degrade the quality of the image. Reducing the amount of halftoning can reduce this effect. Use a halftone option appropriate for the image.

Are you printing on envelopes, thermal paper, or picture cards?

- Printing is unreliable on envelopes and other surfaces which have a non-uniform thickness. Printing and feeding of thermal paper is unreliable. The paper side of picture cards may be printed on if the surface is smooth and the card thickness is 0.01"/0.23 mm or less, but printing on the photo side is unreliable.

Are you printing in color on the glossy side of a greeting card?

- The glossy side of a greeting card can only be printed on using metallic ink cartridges.

Are you using Photo Realistic Paper instead of Photographic-Quality Paper?

- If the paper/ink combination is wrong, the print quality will be degraded. In addition, the ribbon in the ink cartridges may break. To avoid problems, use regular ink cartridges for Photo Realistic Paper and Photographic-Quality ink cartridges for Photographic-Quality Paper.

Are you printing on the wrong side of the paper?

- With both Photo Realistic Paper and Photographic-Quality Paper, printing should take place on the glossy side. Particularly with Photographic-Quality Paper, take care not to print on the paper's rear surface while using Photographic-Quality ink cartridges. The ribbons in the cartridges may break.

Color printing is not working or is extremely slow**Are the ink cartridges for color printing installed?**

- The following ink cartridges are required for color printing.
 - Yellow, cyan, magenta, and black ink cartridges
 - Multicolor and black ink cartridges
 - Yellow, cyan, and magenta ink cartridges and Finish cartridge

Are the settings correct?

- Color printing is selected if Business Graphics, Graphic Art, or Photographs are selected in Document Type.

Do you have enough disk space?

- Make sure there is enough space on your hard disk. (The working space is released once printing is finished.)

Is space on the hard disk excessively fragmented?

- Sometimes printing will require an unusually long time when the working space on the disk is excessively fragmented. Before printing, make sure there is enough working space and use a defragmenting program to organize free disk space and files.

Is the application set for color printing? Does the application support color printing?

- Some applications have color printing enable/disable settings. Some applications do not support color printing. Read the manual for the application and check the color settings.

Are you using many applications at one time?

- When very little memory is available for print processing, printing may take a long time or fail. Close as many applications as possible and try again.

Do you have enough memory?

- Handling color images requires a lot of memory for the application and for the data. Sometimes there is insufficient memory left for printing. Make sure your computer has enough memory to print the size of images you are using.

General protection fault errors occur.

- These errors can occur when there is insufficient memory for color printing or when part of the hard disk has become corrupted. After decreasing the size of the print data or scanning the hard disk, try printing again.

Is the free space on the hard disk fragmented?

- The time required for printing can increase dramatically if the free space on the disk drive is extremely fragmented. Clean up your files and defragment the disk by periodically running a utility like DEFRAG that comes with MS-DOS 6.0 (or later) or Windows.

Paper is not feeding correctly or not ejecting correctly from the sheet feeder

Are you using paper which is thicker or thinner than recommended?

- Use paper within the range 0.07 mm - 0.23 mm (0.003" - 0.01"). For auto feeding use paper in the range 0.07 mm - 0.1 mm (0.003" - 0.004").

Are you using paper that is folded or ripped or that has holes?

- Paper like this can cause paper jams and should not be used.
Loose leaf binder or refill paper should not be used because of the holes.

Are you using curled paper?

- This will cause paper jams. The paper should be curled the opposite way to flatten it out before it is used.

Are you using paper with folded or cut corners?

- This causes problems since the paper position sensor and paper length sensor do not work properly.
Sheets with corner cuts, such as transparencies, iron-on transfer sheets, and back print film, will work fine if the corner cut is positioned as shown in the guide.

Is there a paper jam?

- Clear the paper jam. Sometimes a small piece of the page will tear off and remain in the printer so that sheets will still get caught after the jammed page is removed. Use a thick piece of paper and remove any small remaining pieces of paper.

Is the paper feed guide too narrow for the paper?

- The paper feed guide should hold the paper loosely enough that it can feed easily.

Is there too much paper in the sheet feeder?

- The sheet feeder can hold up to 100 sheets of plain paper.

Is the paper feed switch positioned correctly for the paper feed method?

- To print on plain paper using automatic feed mode, set the paper feed switch to position "A"; to print in manual feed mode, set it to position "M".

Is the cut corner in the correct position (for transparencies, back print film, and iron-on transfers)?

- When these sheets are inserted with the cut corner incorrectly positioned, they may not feed correctly. Follow the instructions and insert the sheets correctly.

Are you trying to use automatic feed mode for sheets other than plain paper, laser print paper, or transparencies?

- Iron-on transfers, back print film, greeting cards, reply cards, etc., cannot be printed using automatic feed mode. Use manual feed mode.

Are you printing on envelopes, thermal paper, or picture cards?

- Correct printing and feeding of envelopes and thermal paper cannot be guaranteed. The paper side of picture cards can be used if the card is less than 0.23 mm (0.01") thick and manual feed mode is used. Printing on the photo side is unreliable.

Are you using home-made cards or thick cards?

- Cards with thickness within the range of 0.07 mm - 0.23 mm (0.003" - 0.01") can be used in manual feed mode.

Is there anything blocking the paper output slot (such as a large pile of printed sheets)?

- This can cause ejection or feed problems.

Have you loosened the paper sufficiently prior to loading it into the sheet feeder?

- Paper must be riffled several times prior to being loaded into the sheet feeder. If not, sheets of paper may stick to one another, and cause multiple sheets to feed into the printer at one time, or other forms of misfeed.

Have you loaded multiple sheets of Photo Realistic Paper (Letter / A4)?

- Sheets of Photo Realistic Paper (Letter / A4) should be loaded only one at a time.

Printer makes strange noises when the power is turned on and the error lights blink

Has the carriage packing material been removed?

- Refer to Chapter 1 of this guide for details.

Has the packing tape on the case been removed?

- There are three pieces of tape on the front of the printer that help protect the printer during shipping. Gently remove the tape before using the printer.

Has an ink cartridge become dislodged from the ink cartridge holder?

- Open the front cover and make sure the ink cartridges are correctly installed.

Is there paper caught between the platen and the print head?

- See the section “Clearing paper jams” and remove the paper.

“Missing ink cartridges” message appears. Are all the necessary colors of ink cartridge installed in the printer?

- Color printing requires that four colors of ink cartridge (yellow, magenta, cyan, and black) are installed with the ALPS logo (B side) facing up.

Are you trying to do monochrome printing in Automatic mode?

- If Automatic is selected in Document Type, color ink cartridges must be installed even when printing monochrome. If you want to print using only black ink, select Monochrome Picture or Monochrome Text.

Mechanism or cartridge change error

Are the ink cartridges correctly installed?

- If an ink cartridge has become dislodged from the holder, an ink cartridge change error will occur. Open the front cover and reinstall the ink cartridge.

Are you using the printer on a level surface?

- The printer will not operate correctly on a slanted surface. Place it on a level, stable surface.

Is the printer in a place where it is subject to bumps or vibrations?

- Bumps and vibrations can cause mechanical problems. Place the printer in a place free from vibrations and bumping.

Is the front cover properly closed?

- The printer will not operate correctly if the front cover is not closed correctly. Close the front cover all the way.

Is something sitting on top of the printer?

- The printer may malfunction when there are things stacked on top or pressing it from the side. Do not place anything on top of the printer.

Is there an obstruction in front of the paper output slot?

- If the paper output slot is obstructed, paper ejected from the printer can fold and bend and cause trouble. When printing, make sure that the paper output slot is unobstructed and that there is room for paper to be ejected.

Ink cartridges are not correctly recognized**Is the bar code on the ink cartridge dirty?**

- Clean the bar code.

Is the ink cartridge installed in the holder with the (A) side up?

- Make sure the ink cartridges are placed in the holder with the ALPS logo (B side) facing up.

Has an ink cartridge for a different printer been installed?

- Ink cartridges made by other manufacturers will not work. Use only ALPS Micro Dry™ ink cartridges.

Printing Quality, Hue, and Resolution**Can all four colors of the color inks be combined for black and white printing?**

- If Multi-Pass Black is set in color printing or if the brightness and contrast settings are right, 4-color black is possible. To print only with black, turn off Multi-Pass Black, and return the Image setting under Image Settings to default.

For monochrome printing, select Monochrome Picture under Document Type.

Black is printed with the black ink, but gray portions are printed using four colors.

- In color printing, grayscale intermediate colors (such as gray) are printed using four colors. If you want to print only in black ink, set the Document Type setting in the Paper tab in the Print dialog box to Monochrome Picture.

I would like to adjust the image quality of photographs without reducing character resolution.

- Characters always print at the currently selected resolution (if an outline font is used). The image quality of photographs can be adjusted independently using the Halftone setting in the Quality tab.

There seems to be no difference between photographic output using monochrome printing at 1,200 dpi and images obtained by monochrome printing at 600 dpi.

- In monochrome printing at 1,200 dpi, only the characters can be printed at 1,200 dpi. This is done by smoothing the 600 dpi images. The quality of photographs, however, differs little from that of images obtained by monochrome printing at 600 dpi.

True black cannot be obtained in either the Photo Realistic Paper mode or the 600 dpi Photo Realistic Finishing mode.

- In any printing mode involving Photo Realistic Finishing, three colors are used for printing, i.e., cyan, magenta, and yellow. Black obtained by using these colors is inferior to the black obtained using black ink. For stronger black tones, we recommend that the four color ink cartridges be used to provide full color printing at 600 dpi, then that Photo Realistic Finishing be applied in Overlay mode.

When plain or other coarse-surfaced paper is printed in color, ink is missing from a number of points on the image.

- When paper with a coarse surface is used for full color printing, ink will be missing from certain points where it was difficult to deposit. To correct this, you can attempt the following.
 - Set the Halftone setting in the Quality tab to Standard Dither for printing. The image will be coarse, but the ink will transfer to the paper more reliably.
 - If you have white ink, the image quality may be improved by providing a white undercoat.

When colored paper is used for full color printing, the colors are not reproduced correctly.

- Color printing is based on the colors reproduced when ink is printed on white paper, so correct colors cannot be reproduced on colored paper. MD printers, however, can provide the following forms of printing even on colored paper.
 - On light color paper, MD printers provide a white undercoat prior to color printing. This allows colors to be reproduced in tones close to those obtained by printing on whitepaper.
 - On dark color paper, impressive finishing may be obtained by using monochrome printing with white ink.

Ink and Paper

How should I use white ink?

- White ink can be used as follows:
 - As with metallic ink, white ink is effective for spot color printing on dark-colored paper.
 - White ink can provide an undercoat for full color printing on light-colored or coarse-surfaced paper. The white undercoat will improve image quality and color reproduction.

When I use multicolor ink cartridges for color printing they quickly run out.

- Multicolor ink cartridges are intended for printing small color areas on predominately monochrome documents or for use with metallic color ink cartridges. More ribbon is wasted using multicolor ink cartridges than a set of single color ink cartridges.

For normal color printing, use a set of color ink cartridges (yellow, magenta, cyan, and black).

Ink cartridges run out very fast with monochrome printing.

- Is Enhanced Monochrome selected in the Quality setting? This option improves printing on rough paper but uses the ribbon twice as fast. In most cases, printing with Enhanced Monochrome disabled produces fine results.

Can I use metallic ink cartridges on iron-on transfer sheets or back print film?

- Printing is possible, but when the image is transferred using the iron, the metallic surface will be on the wrong side.

Can I print on overhead transparencies using metallic ink cartridges?

- Printing is possible, but the metallic ink is not transparent.

Is it all right to print using the white ink on top of a full color image?

- This can cause unsatisfactory results. Print the white ink before using other ink colors.

For full color printing and photo realistic finishing, may I use any type of paper?

- We suggest using ALPS High Grade Paper for full color printing and photo realistic finishing. Using other types of paper can produce a poor image.

Must I use the special sheets when printing transparencies?

- Yes, Micro Dry™ inks do not adhere well to normal transparency sheets.

Can I print on regular greeting cards?

- Yes, use manual feed mode.

Can white ink be used for iron-on transfer sheets or back print film?

- When used in monochrome printing as a spot color, it can be effectively transferred to colored T-shirts or paper. Since white ink cannot be printed on paper subjected to full color printing, however, use of white on these types of sheets is not guaranteed.

Can I use the Photo Overcoat cartridge for the photo realistic finishing?

- No. Always use the Finish cartridge.

Is full color printing at 600 dpi possible on Photo Realistic Labels?

- To obtain the best image quality, Photo Realistic Labels are printed in full color at 1,200 dpi. Image quality obtained in full color at 600 dpi or less is not guaranteed.

Connection Method

I would like to use a printer switcher.

- Since your printer switcher may not support bi-directional communication, use a uni-directional interface setting.

I would like to use multiple printer ports for connections.

- If the computer is AT-compatible, up to three ports (LPT1 to LPT3) can be used, as long as they are parallel ports.

Can I use the printer on a network?

- Yes, the printer can be used on the network, but only with a one-way interface and when set for one-way communication.

Other problems and operations

How do I delete the printer driver?

- For Windows 3.1, go to the control panel and open Printer Setup and select the driver. Click on Delete.
For Windows 95, see the directions in this guide for reinstalling the driver.

When my display is set for 64,000 or 16,700,000 colors, I run out of memory when printing.

- Windows runs out of memory when there many display colors. Change to 256 colors when printing. Changing the display mode does not change the print results.

When I print from Notepad in Windows 3.1, the left edge does not print.

- This happens whenever you print from Notepad at 600 dpi or more. Switch to 300 dpi or use a different application.

When I print many sheets continuously, small vertical lines appear on the right side of the page.

- When printing for long periods of time, the print head retains heat and ink can attach to the paper in places other than just the printing area. After printing 30 sheets of Letter/A4 sized pages in monochrome or 8 Letter/A4 sheets in color, let the printer cool down before continuing printing.

Specifications

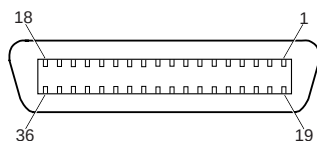
General Specifications

Name	ALPS MD-1300 Photographic-Quality Color Printer
Printing head	240 dot
Printing speed	Ordinary paper: Equivalent to 240 cps (100 cps x 2.4 lines) (When printing 10-cpi text)
Resolution	1200 x 600 dpi (1200 x 600 dpi full color printing is available with Photo Realistic Paper, High Grade Paper and laser paper only)
Printing width	Letter: max. 8 inches/A4: max. 203 mm
Paper feed method	Friction feed
Paper width	100-216 mm (3.9"-8.5")
Paper thickness	0.07-0.23 mm (0.003"-0.01")
Printing media	Plain paper, laser paper, High Grade Paper, overhead projector transparency film, iron-on transfer sheets, Photo Realistic Paper, Photo Realistic Labels, greeting cards, cardboard (thick paper), back print film, Photographic-Quality Paper, Photographic-Quality Labels
Printer buffer capacity	32 KB
Dimensions (inches/mm)	Approximately 462mm(18.19") (width) x 280mm (10.02") (depth) x 190mm(7.48") (height)
Weight	Approximately 4.5 kg (10 lbs)
Power supply	115-230 Vac 50/60Hz
Interface	Parallel
Head life	250 million pulses/dots
Machine life	printing;10,000 cycles
Noise	50 dB Maximum
Agency Approvals	FCCB, UL and CSA
Operating environment	Temperature: 10°C to 30°C (50 to 86°F) (for monochrome on plain paper), otherwise 15°C to 30°C. (59 to 86°F). Humidity: 30% to 70% (without condensation or freezing)
Storage environment	Temperature: 0°C to 35°C (32 to 95°) Humidity: 50% to 70% (without condensation or freezing)

Interface

Connector

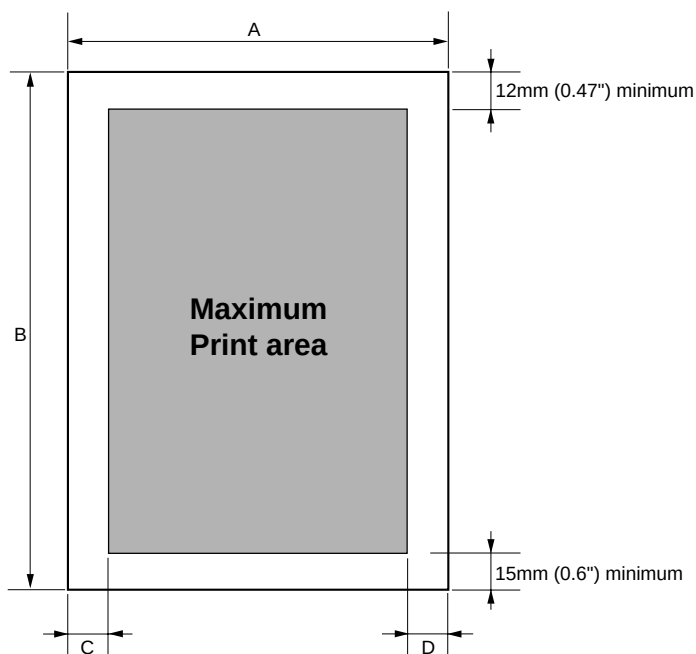
Amphenol 36 pin female



Connector signals

Signal name	Signal name	Signal name
1 Data_STB	14 AutoFeed	27 GND
2 Data1	15 (NC)	28 GND
3 Data2	16 GND	29 GND
4 Data3	17 GND	30 GND
5 Data4	18 +5VDC	31 Prime
6 Data5	19 GND	32 Fault
7 Data6	20 GND	33 GND
8 Data7	21 GND	34 (NC)
9 Data8	22 GND	35 5VDC
10 ACK	23 GND	36 Select-IN
11 Busy	24 GND	
12 PE	25 GND	
13 Select	26 GND	

Printable Area



Maximum Print Area:

	Physical	Paper Size	Left Margin	Right Margin
Paper Size	A	B	C	D
Letter	8.5"	11"	0.25"	0.25"
A4	210mm	297mm	3.4mm	3.4mm
B5	182mm	257mm	3.4mm	3.4mm

Using cardboard, thick paper or back print film

Print within the recommended range shown below. Depending on the printing media, printing outside the recommended area may cause malfunctions such as the ink cartridge ribbon getting caught and breaking.

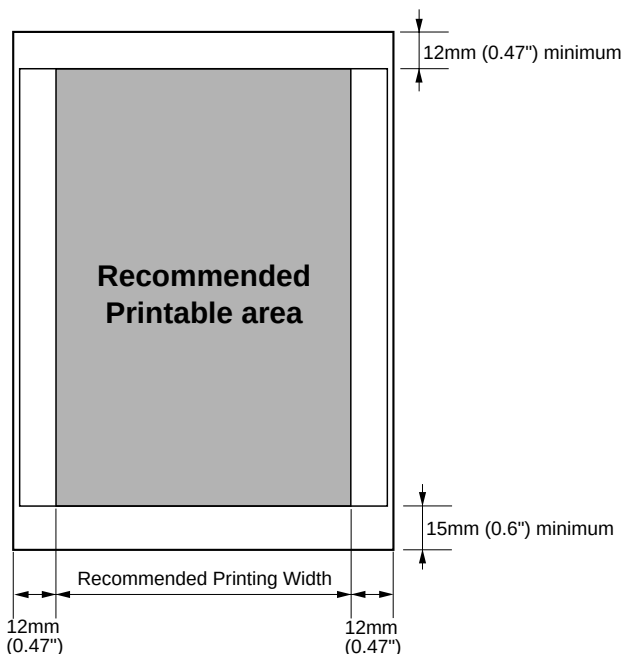
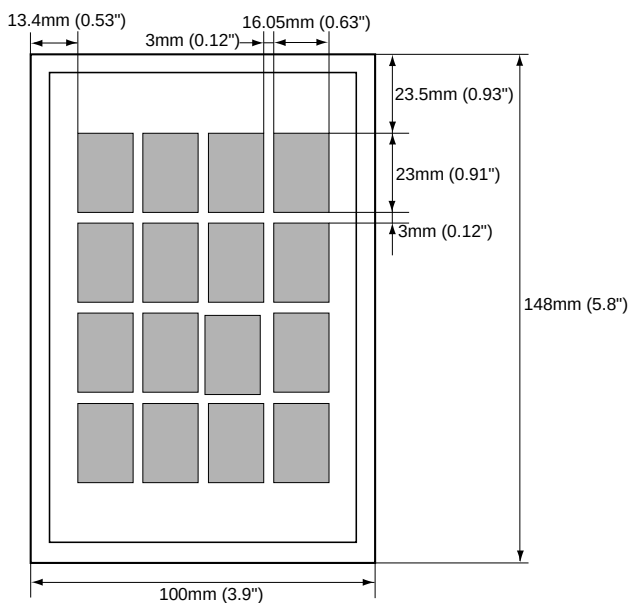
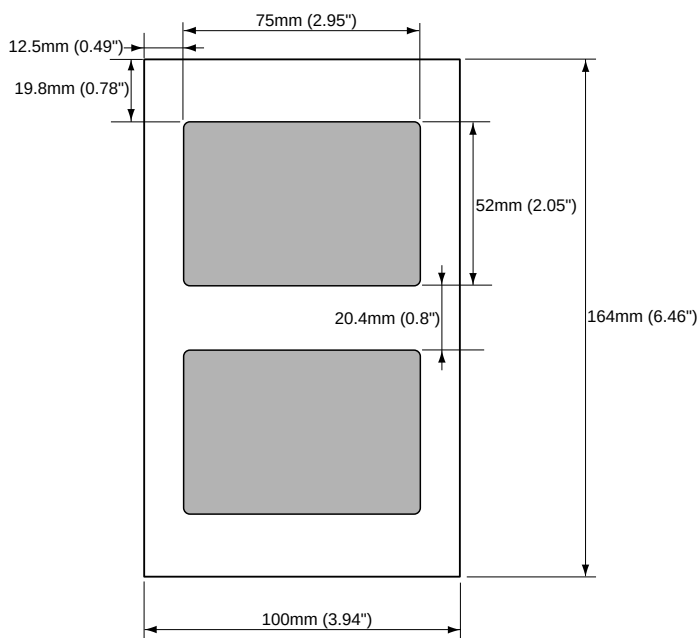


Photo Realistic Labels (16 stickers)

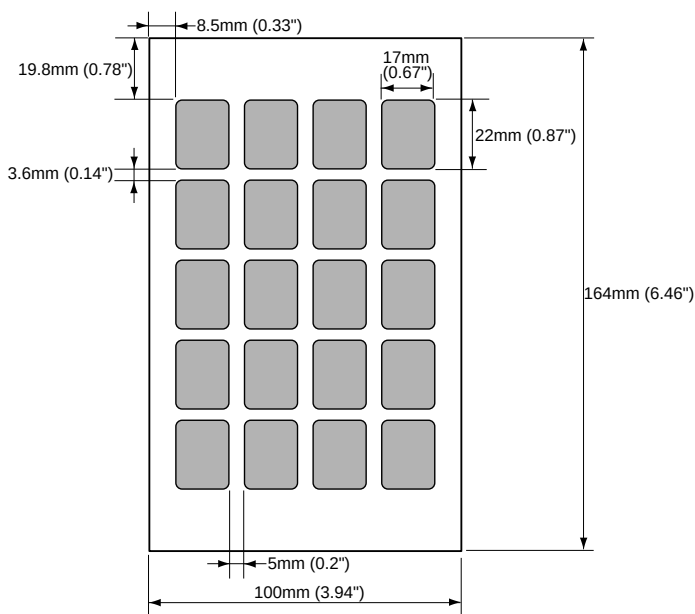


■ Printing is possible within the range shown in rectangles.

Photographic-Quality Labels (2 Stickers)



Photographic-Quality Labels (20 Stickers)



Available Supplies

MD-1300 Supplies List

Ink cartridges

	Part Number
Black ink cartridge	106005-00
Yellow ink cartridge	106010-00
Magenta ink cartridge	106015-00
Cyan ink cartridge	106020-00
Multicolor ink cartridge	106025-00
Metallic gold ink cartridge	106030-00
Metallic magenta ink cartridge	106035-00
Metallic cyan ink cartridge	106040-00
Metallic silver ink cartridge	106045-00
White ink cartridge	106050-00
Finish cartridge	106054-00
Photo cyan ink cartridge	105812-00
Photo magenta ink cartridge	105814-00
Photo yellow ink cartridge	105816-00
Photo overcoat ink cartridge	105818-00

Print media

	Part Number
High Grade Paper (Letter / A4 size)	106085-00/106085-00-EU
Overhead Projector Transparency Film (Letter / A4 size)	106065-00/106065-00-EU
Iron-on Transfer Sheet (A4 size)	106075-00
Greeting Card Set (5.8" x 7.9" / 148 x 200 mm)	106090-00
Back Print Film (A4 size)	106080-00
Photo Realistic Paper (Letter / A4 size)	105720-00/105720-00-EU
Photo Realistic Paper (4" x 6" / 100 x 148 mm)	105721-00
Photo Realistic Labels	105108-00
Photographic-Quality Paper (Letter / A4 size)	105822-00/105822-00-EU
Photographic-Quality Paper (4" x 6" / 100 x 148 mm)	105824-00
Photographic-Quality Labels (2 stickers)	105848-00
Photographic-Quality Labels (20 stickers)	105850-00

Other

	Part Number
Macintosh Interface Module	105715-00/105715-00-EU

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